



The Global Language of Business

# GS1 Model for Supply Chain Processes in Healthcare, Part II - EDI Guideline

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## Log of Changes

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1.	10 November 2014	J. Eriksson	Approved by eballot
1.0	25 November 2014	D. Buckley	Correction of Logo, Disclaimer & links prior to web posting
1.1	Dec 2015	A. Grangard	WR15-198 Consignment stock process included. Deliver process completed with receiving advice and the process updated accordingly. Invoice process included. Credit note process included. Applied new GS1 branding.
1.2	Jul 2017	J. Eriksson	WR-17-000071 Synchronise contract information process revised. Deliver process revised in section 3.9.4.1 Prepare shipment, step Create basis for invoice. Invoice process completed with invoice and the process updated accordingly. Pay process revised. Credit note process completed with credit note and the process updated accordingly. Appendix C completed.

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## 1 Introduction

This document is part of a documentation set describing a model for harmonised and streamlined business processes to be used by the participants in the healthcare supply chain. The documentation set consists of two documents. This document describes the EDI processes of the model. The other document, "[\*GS1 Model for Supply Chain Management in Healthcare, Part I – Framework\*](#)", describes the framework of the model.

The audience for this document are:

- Experts from business operations where the EDI solutions are implemented, who can use the document to support the identification of changes to be made to those operations.
- Systems developers who will modify business systems, applications and other software.

The business processes are clearly and completely described in this document together with the specifications.

The specifications state what information should be included in the electronic business documents exchanged between business systems. This document describes how the business documents are used in the business process and it provides the information needed to implement and use the business process.

The descriptions of the business processes follow a set of rules that describe how business processes are developed and managed. This means that the documentation is consistent and coherent and that similar business requirements are described in the same manner in all business processes.

## 2 Business Processes

This document describes the Order to cash and Consignment stock business processes used in the healthcare sector.

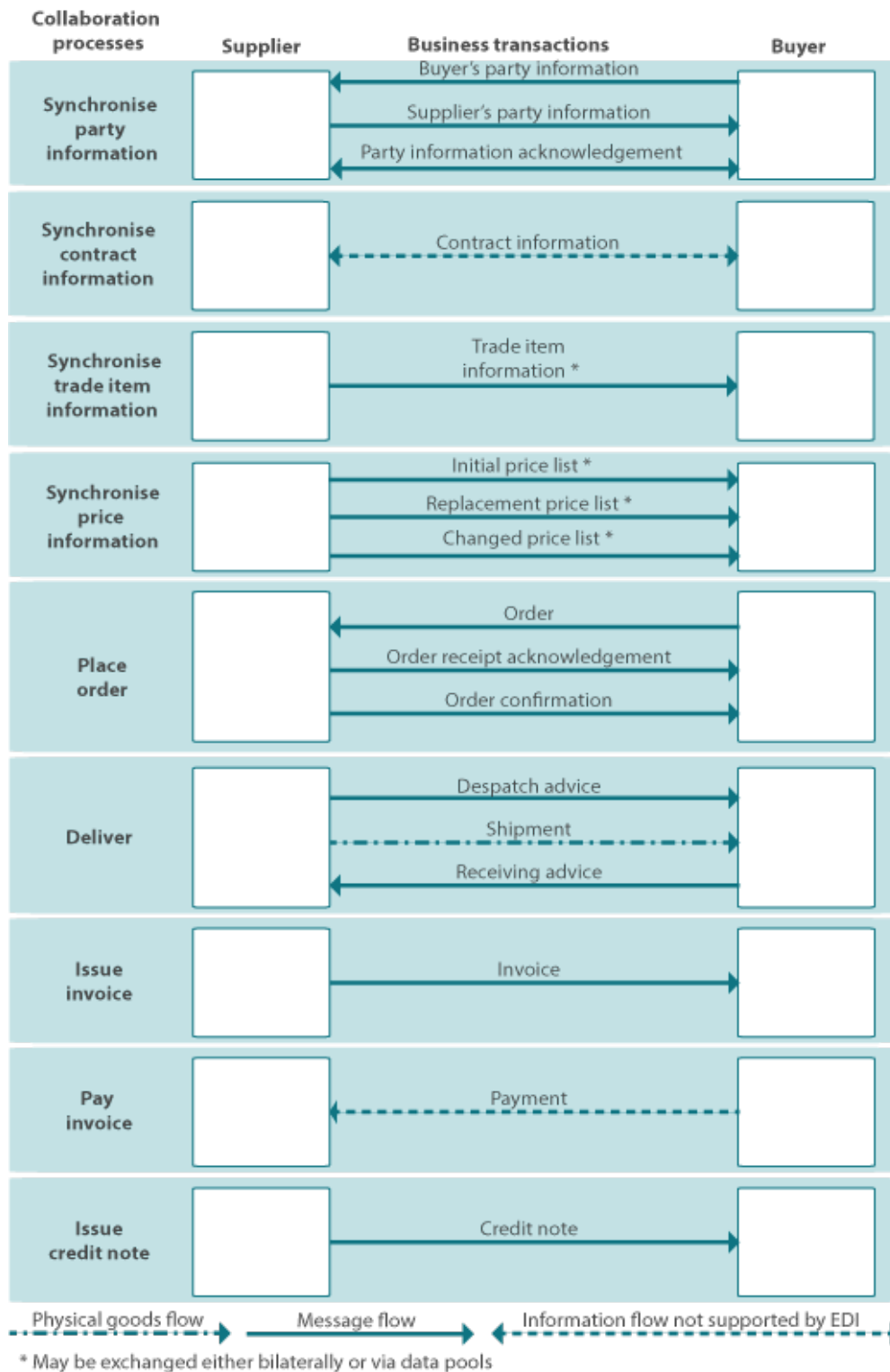
The business processes are described briefly below. In section 3 the business processes are described in detail.

A pre-condition for both parties involved is to have aligned, correct and up to date master data.

## 2.1 Order to cash business process

The figure shows the business transactions that are exchanged between the supplier and the buyer during the Order to cash business process.

**Figure 2-1** Order to cash business process.





The process starts with the parties exchanging master data:

- Party information: Global Location Number (GLN) and associated information such as delivery address.
- Contract information.
- Trade item information: Global Trade Item Number (GTIN) and associated information such as dimensions and packaging type. The trade item information can be exchanged either bilaterally or via data pools.
- Price information. The price information can be exchanged either bilaterally or via data pools.

Prices and trade item information, together with other master data, is used as a basis when the buyer creates an order. The supplier can respond with an order receipt acknowledgement to acknowledge receipt of the order, or with an order confirmation to confirm that the supplier has accepted the order. If the supplier cannot deliver the ordered items, an order confirmation with changes must be sent.

When the ordered items have been picked and are ready for shipment the supplier can send a despatch advice to the buyer. This specifies exactly which items are being sent and contains information such as the items' expiry date, serial number and batch number. After receiving the goods the buyer can send the supplier a receiving advice if the parties have agreed on such arrangement.

When the goods have been delivered the supplier sends an invoice to the buyer. In order to carry out invoice reconciliation automatically, all content must be linked back to master data, order, order receipt acknowledgement, order confirmation and despatch advice.

The process ends with the buyer paying the invoice. If there were errors in the invoice, these can be corrected with a credit note.

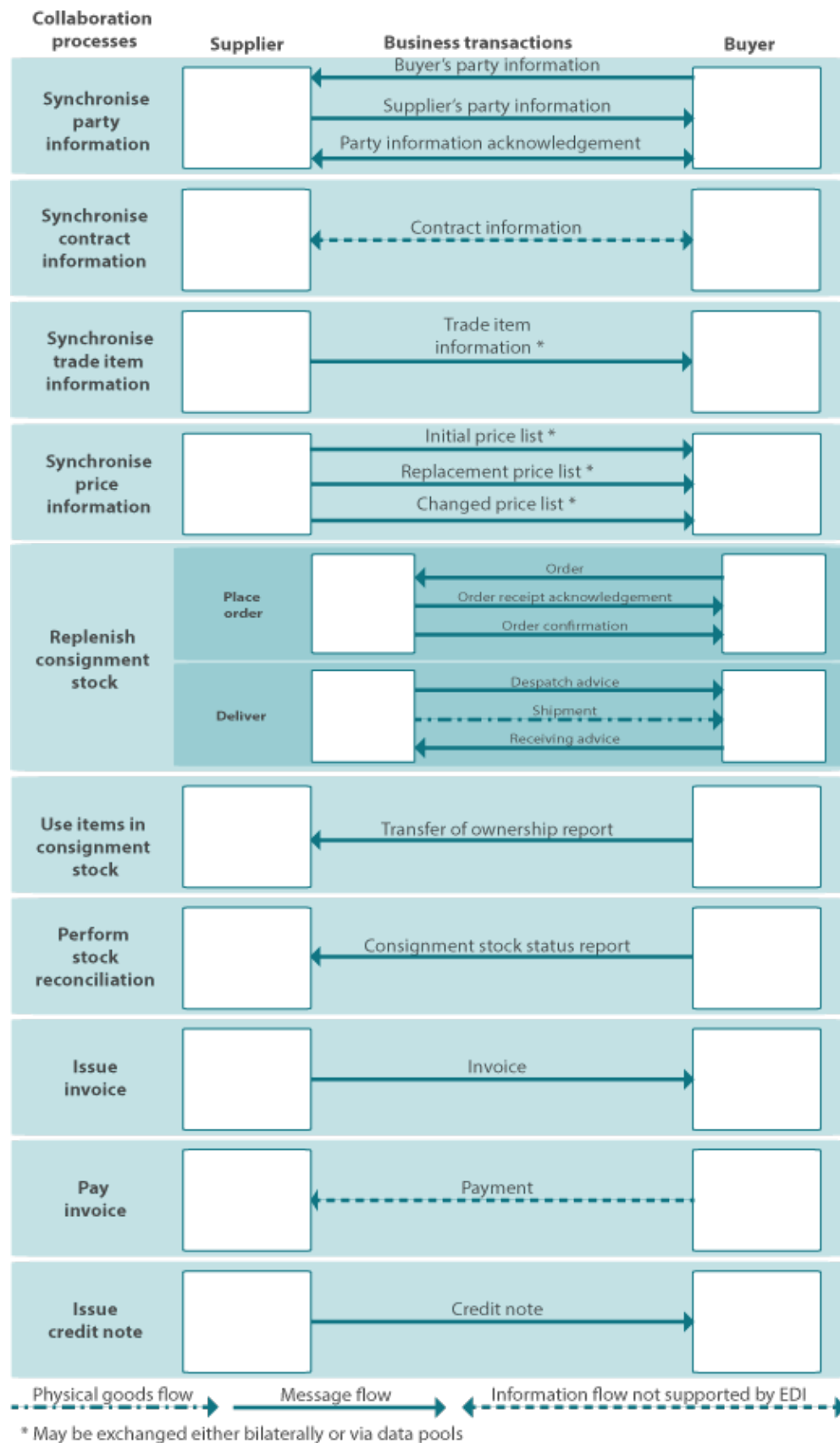
## 2.2 Consignment stock business process

In the Consignment stock business process, the supplier places the consignment trade items in a designated store room at a care taking institution, such as a central warehouse or an operating theatre stock room. The trade items remain the property of the supplier until they are used by the care taking institution (buyer).

The main differences between the Consignment stock and Order to cash business processes are:

- Since the consignment stock is the property of the supplier but located at the buyer, the buyer has to provide the supplier with status information for the consignment stock. Therefore, the buyer notifies the supplier when items are used. The buyer also regularly notifies the supplier about the status of the consignment stock.
- Since the trade items do not become the property of the buyer until after they are used by the buyer, the invoice is based on the reports on used items and not on the delivery of goods.
- Depending on the contract on consignment stock, replenishment is based either on an order from the buyer or on the reports on used items.

The figure shows the business transactions that are exchanged between the supplier and the buyer during the Consignment stock business process.

**Figure 2-2** Consignment stock business process.


The Consignment stock business process starts the same way as the Order to cash business process, with the parties exchanging master data:

- Party information: Global Location Number (GLN) and associated information such as delivery address.
- Contract information, including agreement about consignment stock.
- Trade item information: Global Trade Item Number (GTIN) and associated information such as dimensions and packaging type. The trade item information can be exchanged either bilaterally or via data pools.
- Price information. The price information can be exchanged either bilaterally or via data pools.

The initial stocking of the consignment stock is based on the contract on consignment stock, which specifies the consignment trade items and the initial consignment stock levels. Depending on the agreed procedures between the seller and the buyer, the buyer may raise an order to trigger the demand for the initial trade items and establish the required consignment stock inventory levels. Alternatively, the buyer may wait for the delivery and carry out a stock adjustment to set up the inventory.

When consignment trade items are used, the buyer notifies the supplier of their use by sending a Transfer of ownership report. Then the ownership of the trade items are transferred to the buyer and the buyer becomes liable for remitting a payment.

At regular intervals (depending on the contract on consignment stock) the buyer informs the supplier about the stock status using a Consignment stock status report. In this way the buyer and supplier make sure that the information about the consignment stock in their respective systems accurately matches.

The issued invoice is based on the items reported as used in one or more Transfer of ownership reports. The invoice specifies the time period during which these reports have been issued. In order to carry out invoice reconciliation automatically, all content must be linked back to master data and the Transfer of ownership reports issued during the specified time period.

The buyer pays the invoice. If there are errors in the invoice, these can be corrected using a credit note.

For the replenishment procedure there are two alternatives, depending on which party, according to the contract, is responsible for managing the consignment stock:

- Replenishment when the **BUYER** is responsible for managing the consignment stock:

When the buyer is responsible for managing the consignment stock, the replenishment procedure is the same as for the Order to cash business process: The buyer places an order with the supplier, who may respond with an order receipt acknowledgement and/or order confirmation. When the ordered items are ready to be shipped the supplier sends the buyer a despatch advice referencing the buyer's order.

- Replenishment when the **SUPPLIER** is responsible for managing the consignment stock:

When the supplier is responsible for managing the consignment stock, the buyer normally does not place an order with the supplier. Instead, the supplier prepares the shipment based on one or more Transfer of ownership reports or Consignment stock status reports. In this alternative, the despatch advice references the contract on consignment stock and not the buyer's order, since no order has been sent.

There may however be situations when the buyer needs additional replenishment of the consignment stock compared to the agreed stock levels. In this situation, the buyer may place a consignment order to advice of additional requirements according to the consignment stock contract.

### 3 The collaboration processes

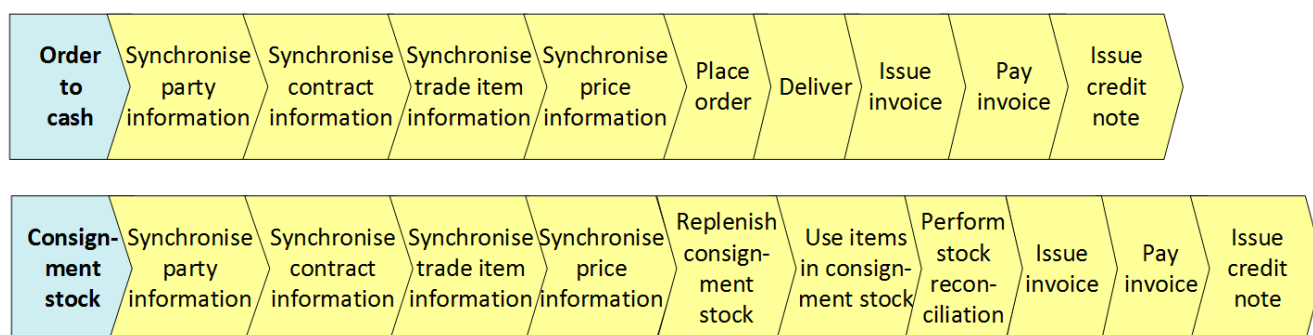
The model for describing a business process as used in this document is based on UN/CEFACT Modelling Methodology (see Appendix A). In the model a business process is divided into collaboration processes. Each collaboration process describes how the trading partners interact and exchange information within a certain area, for example the area of delivering goods.

Figure 3-1 shows an overview of the Order to cash and Consignment stock business processes. The yellow arrows represent the collaboration processes that each business process is divided into. As the figure shows, Order to cash and Consignment stock business processes share several collaboration processes, such as for example 'Synchronise party information'. Other collaboration processes are business process specific, such as for example 'Perform first stocking of items' (Consignment stock business process).



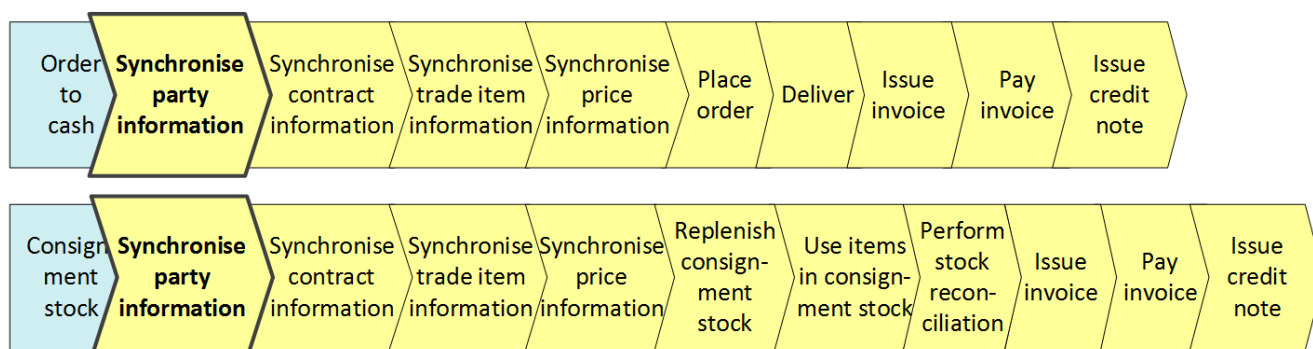
**Note:** The figure is intended to give an overview and does not show the exact order in which the collaboration processes are carried out, since some collaboration processes can be used repeatedly and at different stages throughout the business processes. A detailed description of how and when each collaboration process is used is found in each related section.

**Figure 3-1** Overview of Order to cash and Consignment stock business processes and their collaboration processes.



Each collaboration process is described in a separate section below (Figure 3-1 shows which sections are applicable for the Order to cash business process and the Consignment stock business process respectively). The sections describe how the parties should interact within each collaboration process in order to establish an efficient business process.

#### 3.1 Synchronise party information



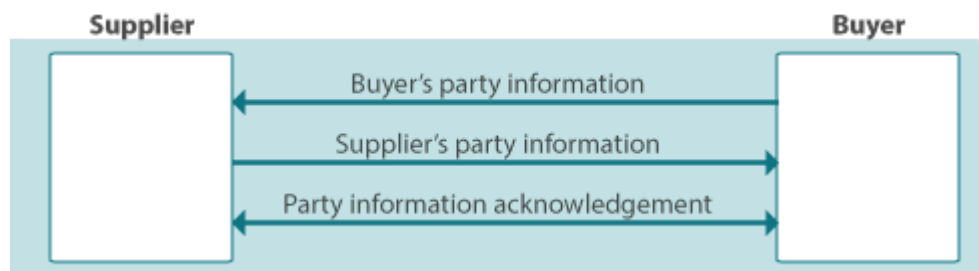
'Synchronise party information' includes the processes by which the buyer and supplier synchronise contact information such as name, address, company number, tax registration number, tax status declaration and account number.

An ordering, delivery and invoicing precondition for both parties involved in the process is to have exactly identical, correct and up to date party information.

In addition to information about the buyer and supplier, details of other roles within each organisation can be exchanged. These might include shipper, if the goods are not shipped from the supplier, or invoice recipient, if the invoice should be sent to other than the buyer's main address.

### 3.1.1 Scenario

**Figure 3-2** Scenario - Synchronise party information.



The process starts when the parties have established a contract. Both supplier and buyer exchange party information. Both parties may acknowledge the exchange of information.

Both parties can, during the contract period, if required:

- Exchange information on additional party roles.
- Advice that information about a party role should be changed, for example a new address for an invoice recipient.
- Advice that a previously transmitted party role and its associated data should be deleted from the other party's file.

#### 3.1.1.1 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between buyer and supplier.
2. Both parties have received by mail, fax or otherwise the other party's principal GS1 Global Location Number (GLN).
3. Both parties have analysed roles and responsibilities within their own organisation. This means being clear who is buyer, goods recipient, invoice recipient, invoicee, etc.
4. Both parties have a file of contracting parties and delivery addresses. Each such address must have a GLN with associated contact information.

#### 3.1.1.2 Termination conditions

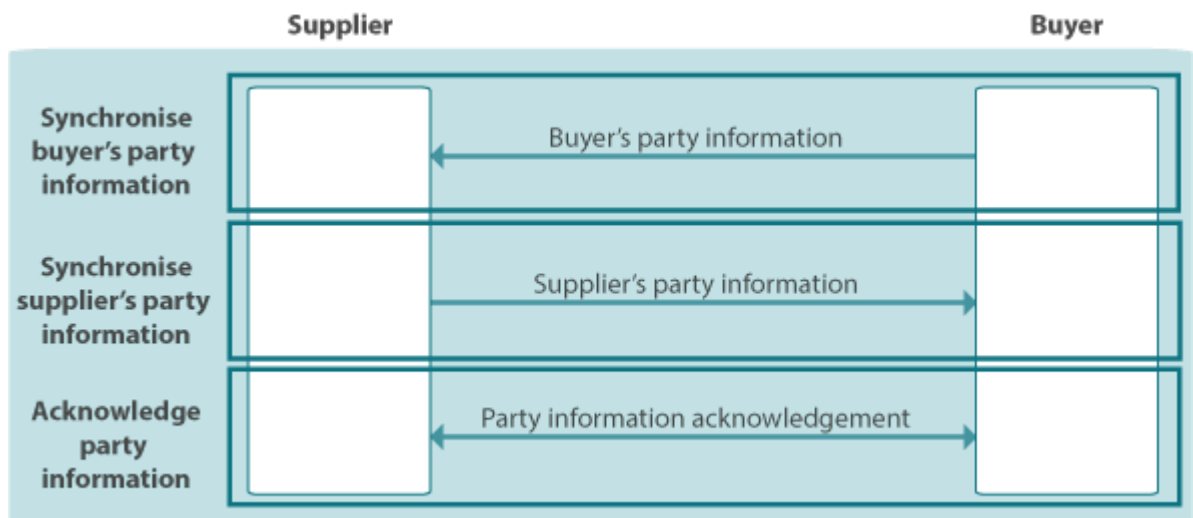
The process runs until the following condition is satisfied:

- The contract has ended.

### 3.1.2 Detailed description of Synchronise party information

This section provides a detailed description of how “Synchronise party information” is implemented.

**Figure 3-3** Synchronise party information



The section is divided into the following sections:

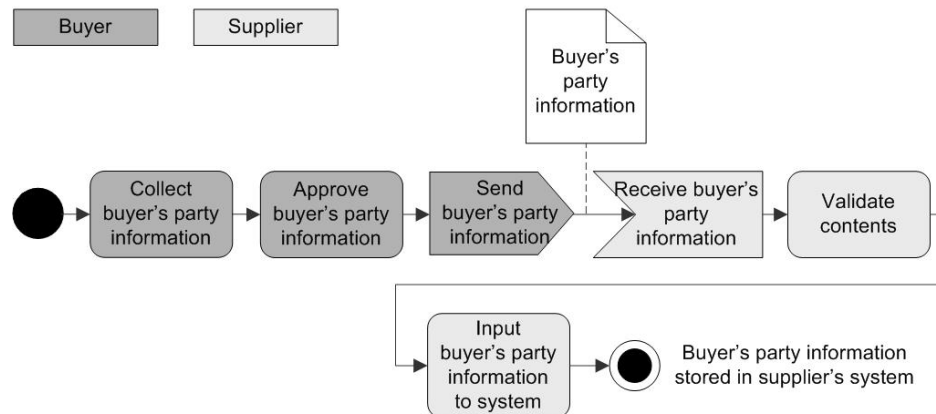
- [3.1.2.1 Synchronise buyer's party information](#) describes how the buyer party information is sent by the buyer and received by the supplier.
- [3.1.2.2 Synchronise supplier's party information](#) describes how the supplier party information is sent by the supplier and received by the buyer.
- [3.1.2.3 Acknowledge party information](#) describes how an acknowledgement is sent to acknowledge receipt of party information.

#### 3.1.2.1 Synchronise buyer's party information

The buyer may exchange business document specification *Buyer's party information* with the supplier with the following data:

- Contact information for party roles to be added to the supplier's system
- Changes to previously transmitted party information, for example that the buyer has changed his address. In addition to changing existing information, a change may also be used to add information for a given role. For example, if the supplier has already received information about the buyer's address, contact person, etc. and the buyer wishes to add a telephone number.
- Roles, for example a goods recipient, that are no longer to be used. The entire record, i.e. all contact information, for this role is deleted (deactivated) in the supplier's system.

**Figure 3-4** Buyer's and supplier's steps when synchronising buyer's party information.



The steps shown in [Figure 3-4](#) are described below.

### Collect buyer's party information

The buyer identifies which items of party information should be sent to the supplier. It is essential that the various party roles in the company have been defined and that the individuals responsible have been identified. The roles for which contact information can be transmitted in this document exchange are:

- Buyer
- Invoicee
- Invoice recipient
- Consignee
- Delivery party
- Authorised orderer

The business document specification *Buyer's party information* shows which information is included in the business document, see section [3.1.3.1 Buyer's party information](#) for an overview.

### Approve, send and receive buyer's party information

The party information must be verified and approved in order to secure that the party information is in accordance with the contract.

When the party information has been approved, it is sent to the supplier. In those cases where the parties have agreed that the recipient of a party information document shall acknowledge receipt, the buyer waits for an acknowledgement document. Read about receipt of business documents in Appendix Receipt of business document and exception handling

### Validate contents of buyer's party information

Once the buyer's party information has been received by the supplier's system, the following validations of the content of the business document should be made:

1. When the document concerns transmission of party information for a new party role it must be checked that the GLN is not already registered in the supplier's system. This is to ensure that several sets of information are not associated with the same GLN.
2. When the document is about a change or deletion of previously transmitted party information it must be checked that the GLNs sent in the party information are already input and active.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Input buyer's party information to system

If the business document validates correctly, the information is stored in the supplier's system for further use.

When previously transmitted party information is to be changed, the old information which is to be replaced should be made inactive but saved for traceability purposes.

When previously transmitted party information is to be deleted, information associated with the GLN should be made inactive. Data which is legally required for accounting must be saved and archived (e.g., buyer's name, tax registration number, etc.) based on each country/region regulations.

### Send acknowledgment

If the parties have agreed to use acknowledgements, the next step is for the supplier to send an acknowledgement of receipt to the buyer. See section [3.1.2.3 Acknowledge party information](#).

Throughout the contract period the buyer may send updated party information to the supplier.

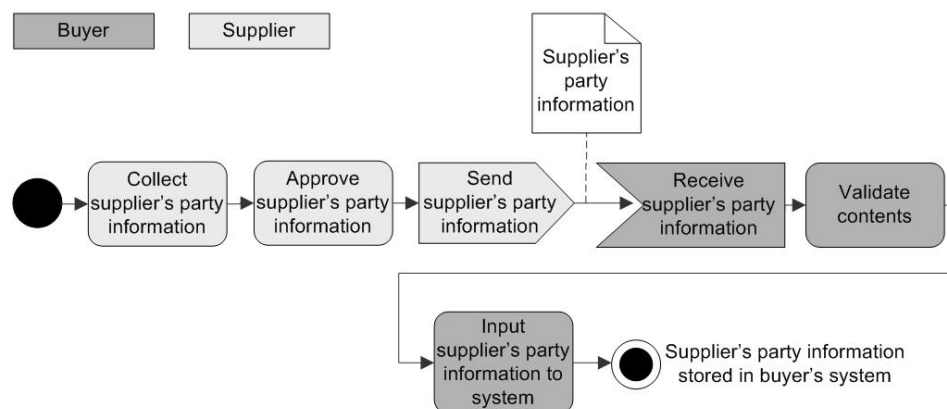
### 3.1.2.2 Synchronise supplier's party information

The supplier may send Business document specification *Supplier's party information* to the buyer with the following data:

- Contact information for party roles to be added to the buyer's system.
- Changes to previously transmitted party information, for example that the supplier has changed his address. In addition to changing existing information, a change may also be used to add information for a given role. For example, if the buyer has already received information about the supplier's address, contact person, etc. and the supplier wishes to add a telephone number.
- Roles that are no longer to be used. The entire record, i.e. all contact information, for this role is deleted (deactivated) in the buyer's system.

The document exchange includes the same steps as *Synchronise buyer's party information*, with the roles reversed.

**Figure 3-5** Buyer's and supplier's steps when synchronising supplier's party information.



The steps shown in [Figure 3-5](#) are described below.

### Collect supplier's party information

The supplier identifies which items of party information should be sent to the other party. It is essential that the various party roles in the company have been defined and that the individuals responsible have been identified. The roles for which contact information can be transmitted in this document exchange are:

- Supplier



- Shipper
- Payee

Information relevant for the buyer is exchanged.

- When party roles are to be added, all party information relevant for the buyer is exchanged.
- When previously transmitted party information is to be changed, only the party information to be changed is exchanged together with the associated GLN.
- When previously transmitted party information is to be deleted, only the GLNs for the party roles to be deleted are exchanged.

The business document specification *Supplier's party information* shows which information is included in the business document see section [3.1.3.2 Supplier's party information](#) for an overview.

### **Approve, send and receive supplier's party information**

The party information must be verified and approved in order to secure that the party information is in accordance with the contract.

When the party information has been approved, it is sent to the buyer. In those cases where the parties have agreed that the recipient of a party information document shall acknowledge receipt, the supplier waits for an acknowledgement document. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### **Validate contents of supplier's party information**

Once the supplier's party information has been received by the buyer's system the following validations of the content of the business document should be made:

1. When the document concerns transmission of party information for a new party role it must be checked that the GLN is not already registered in the buyer's system. This is to ensure that several sets of contact information are not associated with the same GLN.
2. When the document is about a change or deletion of previously transmitted party information it must be checked that the GLNs sent in the party information are already input and active.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### **Input supplier's party information to system**

If the document validates correctly, the information is stored in the buyer's system for further use.

When previously transmitted party information is to be changed, the old information which is to be replaced should be made inactive but saved for traceability purposes.

When previously transmitted party information is to be deleted, information associated with the GLN should be made inactive. Data which is legally required for accounting must be saved and archived (e.g., supplier's name, tax registration number, etc.) based on each country/region regulations.

### **Send acknowledgement**

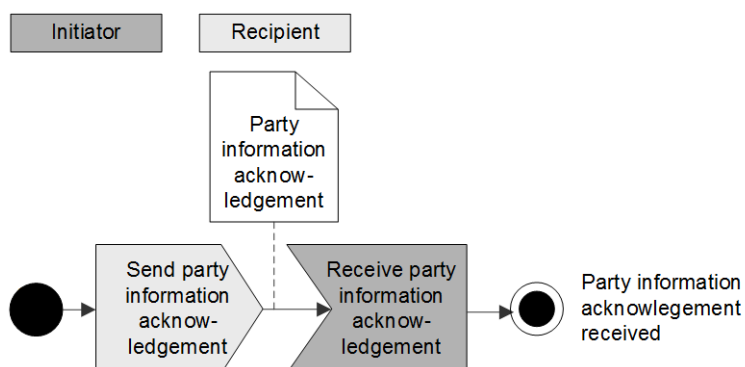
If the parties have agreed to use acknowledgements, the next step is for the buyer to send and acknowledgement of receipt to the supplier. See next section [3.1.2.3 Acknowledge party information](#).

Throughout the contract period the supplier may send updated party information to the buyer.

## **3.1.2.3 Acknowledge party information**

When a buyer has received business document *Supplier's party information*, he may send an acknowledgement to the supplier. When a supplier has received business document *Buyer's party information*, he may send an acknowledgement to the buyer. The acknowledgement is transmitted using business document *Party information acknowledgement*.

**Figure 3-6** Initiator's and recipient's steps when transmitting party information acknowledgement.



The steps shown in [Figure 3-6](#) are described below.

### Send and receive party information acknowledgement

The party – buyer or supplier – who has received party information creates and sends the acknowledgement. This confirms that the party information message has been received and that its contents have been validated, resulting in either a rejection or acceptance. The business document specification *Party information acknowledgement* shows which information is included in the business document, see section [3.1.3.3 Party information acknowledgement](#) for an overview. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

Throughout the contract period the parties may exchange updated party information with each other.

## 3.1.3 Business document specifications

The following sections give an overview of the information contained in the business documents used for synchronising party information. They also include clarification of how the business documents should be used for implementation and links to the complete specifications.

### 3.1.3.1 Buyer's party information

To determine the unique identification of the buyer the following information must be provided:

- GLN
- Name
- City
- Country code
- PO Box number
- Postal code
- Street address

### 3.1.3.2 Supplier's party information

To determine the unique identification of the Supplier the following information must be provided:

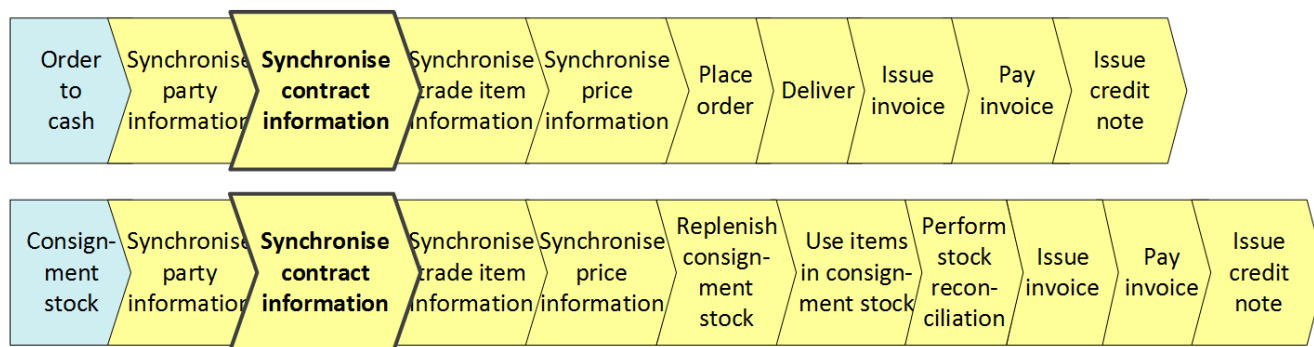
- GLN
- Name
- City
- Country code
- PO Box number
- Postal code

- Street address

### 3.1.3.3 Party information acknowledgement

When a buyer has received the Supplier's party information, a confirmation will be to the supplier. When a supplier has received the Buyer's party information, a confirmation will be sent to the buyer. Party information acknowledgement is sent a PARTIN message.

## 3.2 Synchronise contract information



'Synchronise contract information' includes the processes by which buyer and supplier synchronise contract information. Once the buyer and supplier have agreed on a contract they must ensure that the contract information is entered into their respective business systems.

There are no business document specifications for the transmission of contract information. The parties must ensure that all necessary information is exchanged in an appropriate manner.

### Contract information applicable for both Order to cash and Consignment stock business processes

The following items should be covered for both Order to cash and Consignment stock business processes:

1. How often deliveries are to be made.
2. Payment terms, e.g., when the supplier expects to be paid.
3. Terms of delivery – when responsibility is transferred from the supplier to the buyer.
4. Agreement on invoice charges, such as freight charge.
5. Agreement on charges applicable to invoiced trade items (e.g., surcharge for ordering lower quantity than agreed as minimum quantity).
6. Agreement on allowances.
7. Whether or not back-orders are permitted.
8. Whether the supplier can replace an ordered item with another.
9. If partial deliveries are allowed, i.e. the supplier can deliver some items at a later date.
10. If the supplier may deliver later than the buyer's requested delivery date.
11. Methods of payment.
12. Terms of compensation for sub-standard goods.
13. Terms for reimbursement of returnable packaging.
14. Terms for other requests for compensation and how this will be made (credit note).

**Additional contract information applicable for Order to cash business process.**

The following items should be covered for the Order to cash business process in addition to the common items above:

1. Agreement on if invoices should be issued periodically, e.g monthly (more than one order per invoice), or per each order.
2. If an agreement has been established that one invoice can refer to only one order, then an additional agreement must be established:  
  
Agreement on when invoicing should be made if one order results in more than one delivery of trade items. There are two alternatives:
  - An invoice is sent per each delivery relating to one and the same order, **OR**
  - An invoice is sent at the last delivery and includes all delivered trade items.
3. Agreement on if the receiving advice, if used, should be taken into account when issuing the invoice.

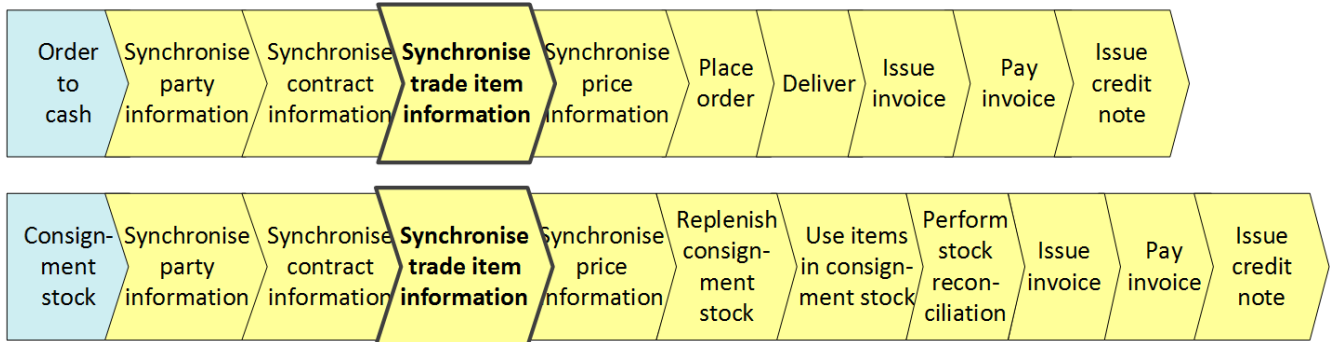
**Additional contract information applicable for Consignment stock business process**

For the Consignment business process, contract information regarding the consignment stock must be exchanged between the parties in addition to the common information above. The contract on consignment stock regulates the overall responsibility for the consignment stock: whether it is managed directly by the supplier or whether the hospital undertakes this task on behalf of the supplier. This means that the contract clearly defines the responsibilities for the actions required to support the process. The contract contains agreements regarding:

1. Warehouse operators (possibly using third parties or subcontractors), obligations and rights of the parties.
2. Period of contract.
3. Liability for damage, loss, theft.
4. Insurance.
5. The use of an inventory management IT system suited for consignment stock.
6. Principles of inventory management, for example items with the earliest expiration date are used first.
7. Storage location and the cost liability for storage.
8. Method of storage and handling (cool, dry, easily damaged etc.).
9. The amount of the stock (minimum and maximum levels).
10. Process for handling quarantined items.
11. Replenishment status per item (if the item is replenished without a specific request from the buyer, or if it is replenished only when requested).
12. Schedule for communicating Transfer of ownership report reflecting the actual usage by the hospital.
13. Physical audit, inspection and responsibility of the items in consignment stock to determine the quality and quantities of the items (stocktaking). The contract should include an agreement on what business partner should do the inspection.
14. Schedule for periodic stocktaking.
15. Schedule for communicating Consignment stock status report.
16. Processes for correcting identified discrepancies between the consignment stock levels in supplier's and buyer's inventory management systems.
17. What to do with the remaining items on consignment stock when the agreement expires.
18. Agreement on if invoices should be issued periodically, e.g monthly (more than one Transfer of ownership report per invoice), or one invoice per each Transfer of ownership report.

The consignment stock contract also specifies, in detail, the items held on consignment, the initial consignment stock levels (or min/max quantities) and the continuing stock levels of each trade item. Buyer and supplier may agree to change the items, delete items and add new items and amend stock levels of one or more trade items. This may result in a revision to the initial contract.

### 3.3 Synchronise trade item information



'Synchronise trade item information' includes the processes by which buyer and supplier synchronise trade item information. It is important that trade item information always be up to date. Some examples of trade item information are: dimensions, packaging type and Global Trade Item Number (GTIN).

#### 3.3.1 Scenarios

The process starts when the supplier sends trade item information to the buyer following the conclusion of a contract between the parties. During the entire contract period the supplier can send updated trade item information to the buyer.

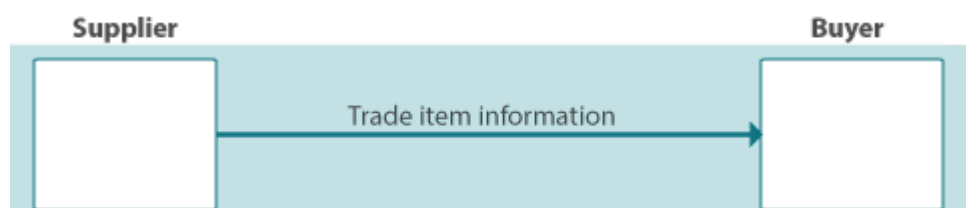
There are two different scenarios for synchronising trade item information:

- Bilateral synchronisation of trade item information.
- Synchronisation of trade item information via a data pool.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into a contract.

##### 3.3.1.1 Scenario 1 - Bilateral synchronisation of trade item information

**Figure 3-7** Scenario 1 – Bilateral synchronisation of trade item information.



Trade item information is exchanged directly from the supplier to the buyer.

1. When new trade items are added or existing ones amended, the supplier updates the data in his system. He then sends a message to the buyer.
2. The buyer then incorporates the new or amended data into his own system.

##### 3.3.1.2 Scenario 2 - Synchronisation of trade item information via data pool

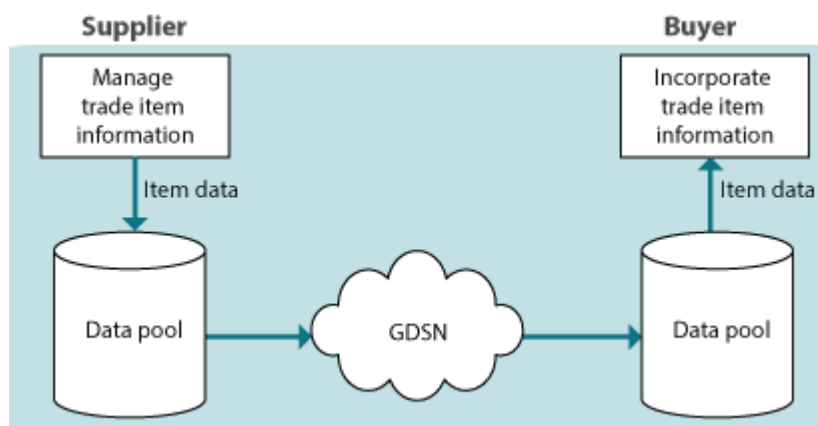
Master data is exchanged between buyer and supplier through one or more data pools. A data pool is a service provider who receives data from a source and sends it to the subscribe buyer. The main advantage is that the source only has to supply the neutral master data once (one to many), instead of having to pass it on to each trading partner (many to many) separately. Other

advantages are that the supply chain participants only have to maintain a connection with a single party (the data pool), and that the data pool can perform quality checks on the data supplied.

The figure below illustrates the scenario for the synchronisation of trade item data, where the supplier is the source, and the buyer and supplier work with different data pools.

✓ **Note:** GS1 offers a standard for connecting data pools, this is the Global Data Synchronisation Network (GDSN). See <http://www.gs1.org/gdsn>.

**Figure 3-8** Scenario 2 – Synchronisation of trade item information via data pool.



1. When new trade items are added or existing ones amended, the supplier updates the data in his system. He then sends a message to his data pool.
2. The supplier's data pool verifies and processes the data before accessing the Global Registry (GDSN) to obtain a list of data pools to which the data in question must be transmitted. A message is then sent to the buyer's data pools.
3. The buyer's data pool receives, verifies and processes the message. It then sends a message to those buyers who subscribe to the trade item in question.
4. The buyer then incorporates the data into his system.

✓ **Note:** A similar scenario can be used for the synchronisation of location data.

### 3.3.1.3 Initial conditions

For a collaboration process to work, the following conditions must be fulfilled before the process starts:

1. Contractual agreement.
2. EDI agreement (preconditions).
3. Infrastructure in place for exchanging information.

In the case of Scenario 2 the following conditions also must be fulfilled in order for the process to start:

4. All parties need to be registered with a certified GDSN data pool.
5. Supplier must publish trade item information to the GLNs of the receiving parties.
6. Receiving parties must subscribe to the GLN of the supplier.

### 3.3.1.4 Termination conditions

The process runs until the following condition is satisfied:

- An acknowledgement message is sent in the form of a total rejection.

- In scenario 2: If a party no longer wishes to exchange information with another party data synchronisation can be terminated by:
  - Supplier stops publishing data to a receiving party.
  - Receiving party unsubscribes to the suppliers GLN.

### 3.3.1.5 Acknowledge trade item information

When a buyer has received the Supplier's trade item information, a confirmation will be sent to the supplier. When a supplier has received the Buyer's trade item information, a confirmation will be sent to the buyer. Trade item information acknowledgement messages indicate one of three types of information:

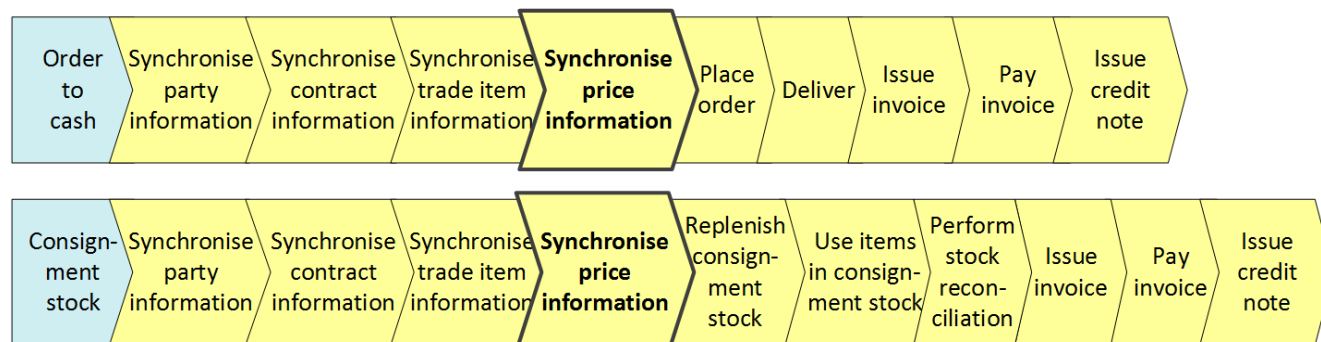
- total acceptance
- total rejection
- proposed change of information at either a product group level or at an individual product level.

### 3.3.2 Business document specifications

This section gives an overview of the information contained in the business document used for synchronising trade item information. The section also includes clarification of how the business document should be used for implementation and links to the complete specifications.

*To complete collaboration process Synchronise trade item information, business document specifications have to be developed in a future project.*

## 3.4 Synchronise price information



'Synchronise price information' covers the processes by which the supplier keeps the buyer updated on the prices for the contracted selection. The supplier sends price information to the buyer to confirm that both systems have the same information on the contracted selection and prices in their databases. This is a prerequisite for orders and deliveries to work correctly and efficiently and for invoices to be administered and checked automatically.

### 3.4.1 Scenarios

The process starts when the supplier sends the first price list to the buyer following the establishment of a contract between the parties. During the entire contract period the supplier can send further price lists to update price information. A price list contains information about item prices and conditions under which any charges or discounts should be calculated and invoiced.

Note that prices in the price lists are only contracted prices. A price list may not be used to exchange price announcements or proposals.

There are three different types of price list: initial price list, replacement price list and changed price list.

The following applies for the different price list types:



- **Initial price list** is used for the first transmission of contracted prices and conditions following the conclusion of a new contract. When prices or conditions are changed during the contract's validity period, this is communicated using replacement price list and or changed price list, see below.
- **Replacement price list** is used to exchange information on prices and conditions which have changed since the most recently transmitted price list. Replacement price list contains information on all contracted items and terms - both those which have changed and any which are unchanged since the most recently transmitted price list. The information sent in the previous price list is replaced in its entirety with information in the replacement price list. A replacement price list should always be sent soon after changes have been agreed.
- **Changed price list** is used to exchange information on prices which have changed since the most recently transmitted price list. Changed price list contains only those items where price information has changed since the most recently transmitted price list. The information sent in the previous price list is updated with information in the changed price list. A changed price list should always be sent soon after changes have been agreed.

Which of the three types of price list should be used in a business relationship depends partly on what has been agreed between the parties and partly on fixed rules as follows:

1. An initial price list must always be used for the first transmission of contracted prices and conditions following the conclusion of a new contract.
2. The parties must decide which type(s) of price list - replacement price list and/or changed price list - are to be used in the business relationship to exchange information about changes at the item level.
3. The parties must decide if terms for calculation of charges and discounts can be changed during the contract's validity period.
4. If the terms can be changed during the contract's validity period, replacement price list is used to exchange changed information.
5. If the terms cannot be changed during the contract's validity period, the contract must be terminated and a new contract signed in order to change the terms. The new contract information will then be sent using initial price list according to item 1 above.

There are two different scenarios by which the buyer and supplier can synchronise the price information:

- Bilateral synchronisation of price information.
- Synchronisation of price information via a data pool.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into a formal contract.

#### 3.4.1.1 Scenario 1 – Bilateral synchronisation of price information

**Figure 3-9** Scenario 1 – Bilateral synchronisation of price information.



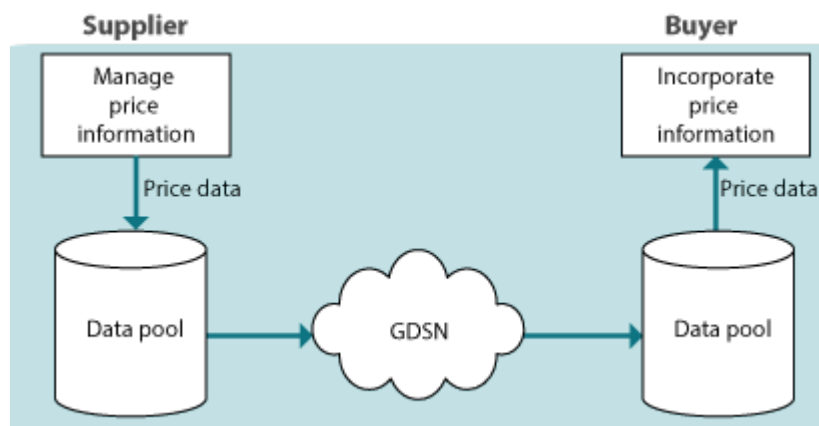
Price information is exchanged directly between buyer and supplier.

1. When price information needs to be updated, the supplier updates the data in his system. He then sends a message to the buyer.
2. The buyer then incorporates the data into his own system.



### 3.4.1.2 Scenario 2 – Synchronisation of price information via data pool

**Figure 3-10** Scenario 2 - Synchronisation of price information via data pool.



1. When price information needs to be updated, the supplier updates the data in his system. He then sends a message to his data pool.
2. The data pool verifies and processes the data before accessing the Global Registry (GDSN) to obtain a list of data pools to which the data in question must be transmitted. A message is then sent to these other data pools.
3. The buyer's data pool receives, verifies and processes the message. It then sends a message to those buyers who subscribe to the trade item in question.
4. The buyer then incorporates the data into his system.

### 3.4.1.3 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between buyer and supplier.
2. Trade item information for all items in the price list has been previously sent.
3. The parties have agreed which charges and discounts for an order are included in the contract. The following charges and discounts can be included:
  - Freight charge
  - Service charge
  - Order discount
4. In the case where the parties have agreed that freight charge, service charge, order discount and/or reduction for pick-up of goods are included in the contract, they have agreed:
  - The conditions for how these are to be calculated. For example how the freight charge relates to the weight of the items ordered.
  - Whether the conditions for how these are to be calculated can (or cannot) be changed during the contract's validity period.
5. The parties have agreed which type(s) of price list can be used to exchange changes at the item level from one of the following:
  - Replacement price list
  - Changed price list
  - Replacement price list and Changed price list

If the parties have agreed that both replacement and changed price list can be used, they should also agree how each should be used, for example for which product selection.

6. The parties have agreed on the conditions which allow an item price to be changed, for example changed raw material price or changed exchange rate.
7. The parties have agreed on the conditions for choice of item price to be used when ordering different volumes of an item; full layer, quantity increment for price, small order, etc.
8. The parties have agreed on how frequently price information can be changed at item level.
9. The parties have agreed on how each item should be ordered. For example, should a variable measure item be ordered by each or by weight?
10. The parties have agreed if the prices in the price list apply from order date or delivery date.

#### 3.4.1.4 Termination conditions

The process runs until the following condition is satisfied:

- The contract has ended.

#### 3.4.1.5 To consider when choosing price list type

As described above, the parties must agree in their business relationship which type(s) of price list should be used to exchange information about agreed changes at item level: changed price list, replacement price list or a combination of changed and replacement price lists. It can be advantageous if the recipient can handle both replacement and changed price lists. The supplier then has the option to choose replacement or changed price list based on economic aspects, amongst other things.

The recipient can provide support in his system which sorts out those things that have changed since the most recently transmitted price list. This makes it easier for the recipient's category managers to check changes in the contracted selection and prices. This applies especially when the supplier has chosen to send replacement price list.

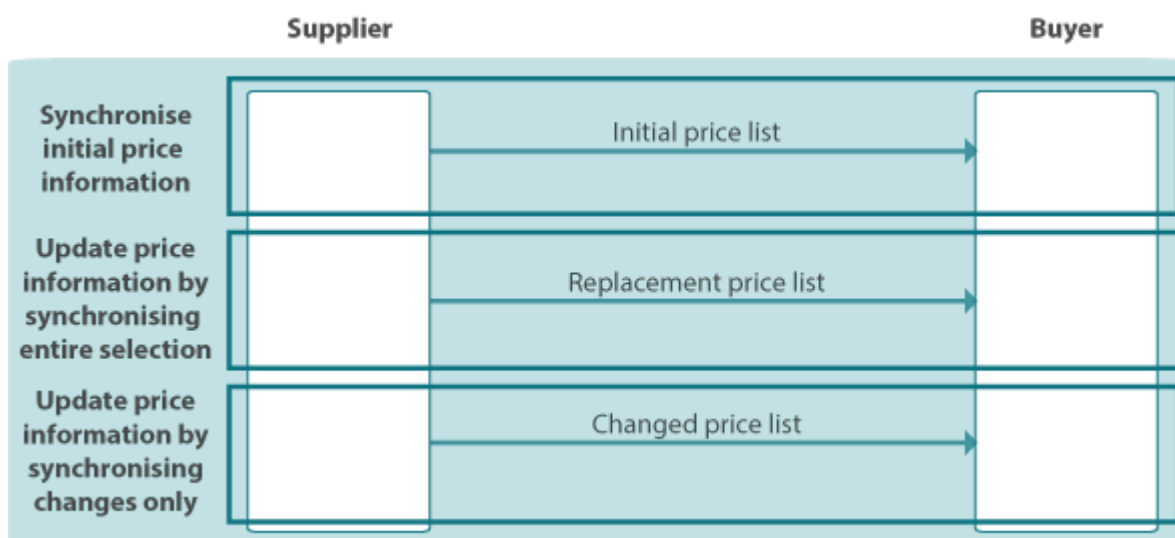
#### 3.4.1.6 Essential to identify all items with GTIN

All orderable units of a product should be uniquely identified using GTINs (Global Trade Item Numbers). This is essential for the customer to be able to place correct orders and also to avoid delivery errors and misunderstandings.

### 3.4.2 Detailed description of Synchronise price information, scenario 1

This section provides a detailed description of how 'Synchronise price information' is implemented when the price information is synchronised bilaterally between buyer and supplier.

**Figure 3-11** Synchronisation of price information, scenario 1.



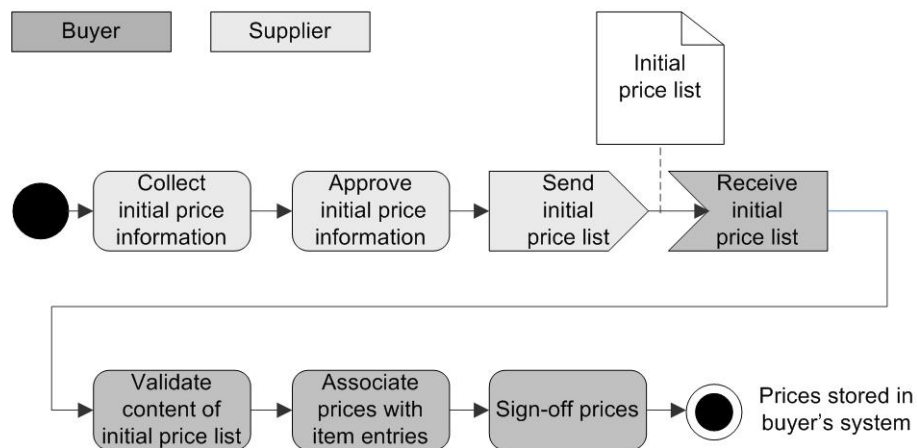
The section is divided into the following sections:

- [3.4.2.1 Synchronise initial price information](#) describes how the initial price information following the conclusion of a contract is sent to the buyer.
- [3.4.2.2 Update price information by synchronising entire selection](#) describes how previously exchanged price information is updated by sending a replacement price list, which contains the entire contracted selection, i.e., information on both changed and unchanged prices is included.
- [3.4.2.3 Update price information by synchronising changes only](#) describes how previously exchanged price information is updated by sending a changed price list, which contains only information that has changed since the last transmitted price list.

### 3.4.2.1 Synchronise initial price information

Once the parties have established a contract, the supplier sends the business document *Initial price list* to the buyer. The initial price list contains the price information agreed by the parties in the contract. Initial price list is used only once in a business process in order to exchange initial price information to the buyer following the conclusion of a contract. To update price information during the contract's validity period, *Replacement price list* and/or *Changed price list* are used instead.

**Figure 3-12** Buyer's and supplier's steps when synchronising initial price information.



The steps shown in [Figure 3-12](#) are described below.

#### Collect and approve price information

The supplier identifies which price information should be sent to the buyer according to the contract. The information is extracted from the file.

The business document specification *Initial price list* shows which information is included in the business document, see section Business document specifications for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the contract.

#### Send and receive initial price list

When the price information has been approved, it is sent to the buyer. Read about receipt of business documents in [Appendix Receipt of business document and exception handling](#).

#### Validate contents of initial price list

Once the price information has been received by the buyer's system, the following validations of the content of the business document should be made:

- That prices correspond to those specified in the contract.

Read about exception handling when validating content in [Appendix Receipt of business document and exception handling](#).

### Associate prices with item entries

If no errors in the price list are reported from validation, the information is entered in the buyer's system. Each item record includes a reference to the initial price list.

### Sign-off prices

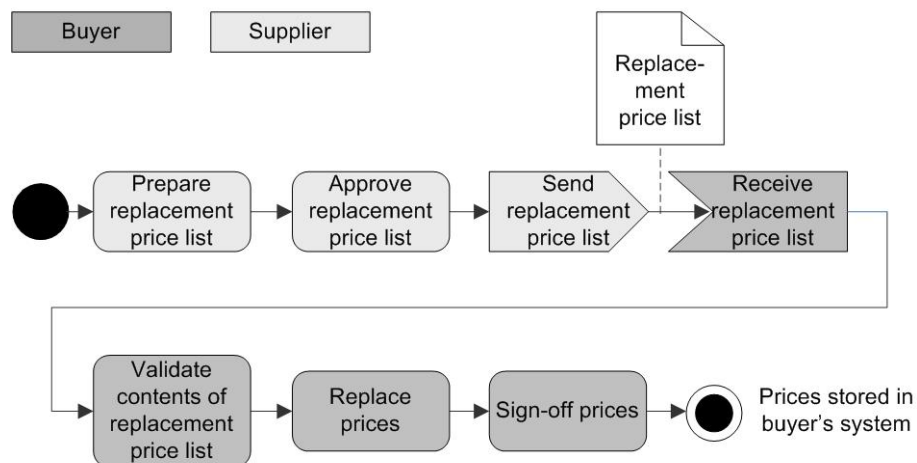
An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

Throughout the contract period the supplier may send updated price information to the buyer. The supplier does this by sending either a *Replacement price list* or a *Changed price list*, according to contract. These are described in the following sections.

#### 3.4.2.2 Update price information by synchronising entire selection

If the parties have agreed on changes to previously exchanged price information, the price information needs to be updated in the parties' systems. The supplier may in that case send a *Replacement price list* to the buyer. This information replaces the price information previously sent.

**Figure 3-13** Buyer's and supplier's steps when synchronising replacement price information.



The steps shown in [Figure 3-13](#) are described below.

#### Prepare and approve replacement price list

The supplier identifies which price information should be sent to the buyer. Since a replacement price list completely supersedes any information transmitted previously, the entire contracted selection must be included. This means that a replacement price list contains information on both changed and unchanged prices.

The business document specification *Replacement price list* shows which information is included in the business document, see section Business document specifications for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the contract.

#### Send and receive replacement price list

When the price information has been approved, it is sent to the buyer. When and how often a replacement price list can be sent is specified in the contract. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

#### Validate contents of replacement price list

Once the price information has been received by the buyer's system the following validations of the content of the business document should be carried out:

1. That there is a reference to the immediately preceding pricelist.

2. That the replacement price list has been sent at a time and with a frequency consistent with the agreed terms for price changes.
3. That prices and price changes correspond to those specified in the contract.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Replace prices

If the document validates correctly, the information is input to the buyer's system. For each item in the replacement price list a reference is made to the replacement price list, the previous price list, the contract, the supplier and validity period.

### Sign-off prices

An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

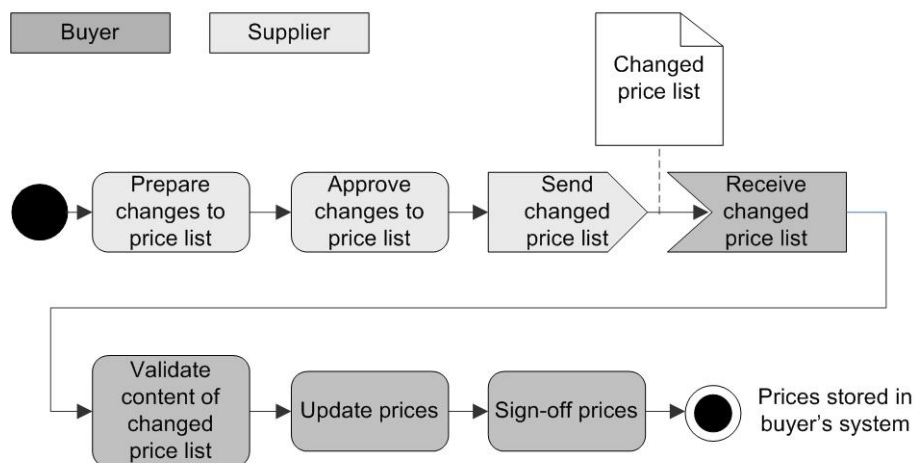
### Next

Throughout the contract period the supplier may send updated price information to the buyer. The supplier does this by sending either another *Replacement price list*, or a *Changed price list*, described in the following section.

#### 3.4.2.3 Update price information by synchronising changes only

If the parties have agreed on changes to previously exchanged price information, the price information needs to be updated in the parties' systems. The supplier may in that case send a *Changed price list* to the buyer. This information updates the price information previously sent. *Changed price list* includes only price information which has changed since the most recently transmitted price information.

**Figure 3-14** Buyer's and supplier's steps when synchronising changed price information.



The steps shown in [Figure 3-14](#) are described below.

#### Prepare and approve price information

The supplier identifies which price information should be sent to the buyer. A changed price list shall only include information on prices which have changed since the last price list was transmitted. The information is extracted from the file.

The business document specification *Changed price list* shows which information is included in the business document, see section Business document specifications for an overview.

The price information must be verified and approved in order to secure that the price information is in accordance with the contract.

### Send and receive changed price list

When the price information has been approved, it is sent to the buyer. When and how often a changed price list can be sent is specified in the contract.

Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### Validate contents of changed price list

Once the price information has been received by the buyer's system the following validations of the content of the business document should be carried out:

1. That there is a reference to the immediately preceding pricelist.
2. That the changed price list has been sent at a time and with a frequency consistent with the agreed terms for price changes.
3. That prices and price changes correspond to those specified in the contract.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Update prices

If the document validates correctly, the information is input to the buyer's system. Each updated item record should include a reference to the changed price list, the previous price list, the contract, the supplier and validity period. This also applies to non-contracted items included in the same price list.

### Sign-off prices

An authorised person approves the transmitted price information. The selection is then made available for ordering. An indication that the information has been checked, approved, and locked against unauthorised changes enables invoices to be processed fully automatically at a later stage.

Throughout the contract period the supplier may send updated price information to the buyer. This is done by sending either another *Changed price list*, or a *Replacement price list*, described in the previous section.

## 3.4.3 Detailed description of Synchronise price information, scenario 2

This section provides a detailed description of how 'Synchronise price information' is implemented when the price information is synchronised via a data pool.

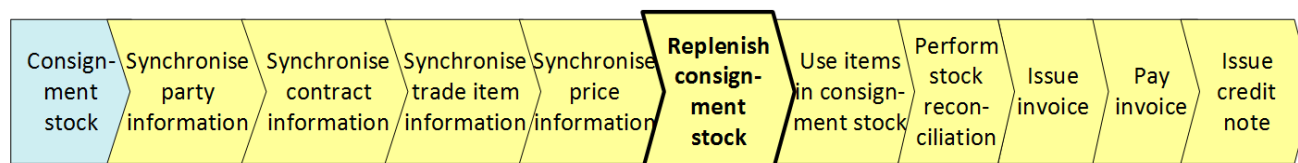
*To complete collaboration process Synchronise price information, the detailed description of Synchronise price information, scenario 2, has to be developed in a future project.*

## 3.4.4 Business document specifications

This section gives an overview of the information contained in the business document used for synchronising price information. The section also includes clarification of how the business document should be used for implementation and links to the complete specifications.

*To complete collaboration process Synchronise price information, business document specifications have to be developed in a future project.*

## 3.5 Replenish consignment stock



This collaboration process is used for the initial stocking of the consignment stock, as well as replenishment following the use of items in the consignment stock.

### 3.5.1 Scenarios

There are two scenarios for this collaboration process:

- **Scenario 1 – The buyer initiates the initial stocking/replenishment.** In this scenario the buyer places a consignment order to trigger the initial stocking as well as the replenishment process.
- **Scenario 2 – The supplier initiates the initial stocking/replenishment.** In this scenario the buyer does not send an order to the supplier. Instead, the supplier bases the shipment on the consignment stock levels specified in the agreement on consignment stock, and the buyer's reports on used items and stock status.

When the **BUYER** is responsible for managing the consignment stock, Scenario 1 is the only way to replenish the consignment stock.

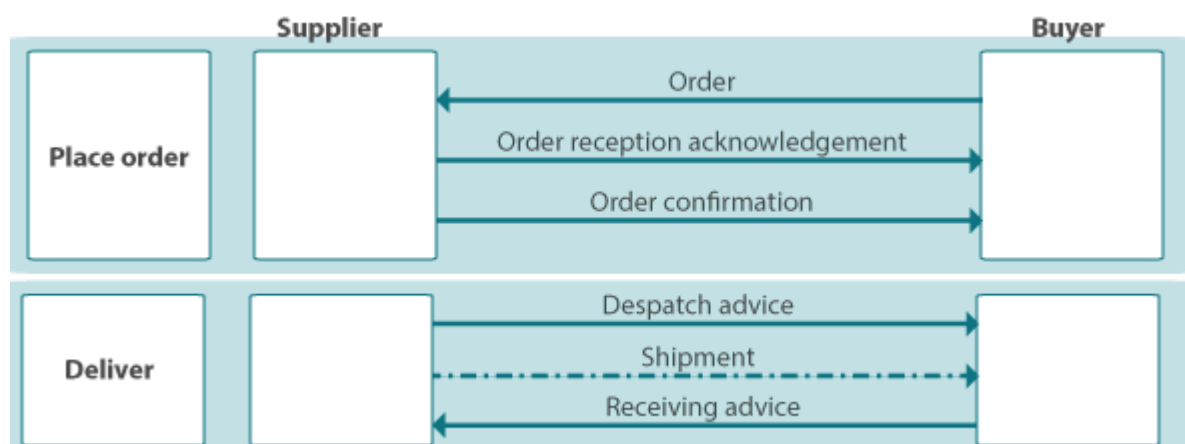
When the **SUPPLIER** is responsible for managing the consignment stock, Scenario 2 is the standard scenario for replenishment. However, there may be situations when Scenario 1 will apply:

- For the initial stocking, depending on the agreed procedures between the seller and the buyer, the buyer may place a consignment order to trigger the demand for the initial trade items.
- For situations when the buyer needs additional replenishment of the consignment stock compared to the agreed stock levels. In this case the buyer may place a consignment order to advise of additional requirements according to the consignment stock contract.

The consignment stock contract specifies which party is responsible for managing the consignment stock.

#### 3.5.1.1 Scenario 1 – The buyer initiates replenishment

**Figure 3-15** Scenario 1 - The buyer initiates replenishment.



1. The buyer places an order with the supplier.
  - For the initial stocking of the consignment stock the order contains trade items and quantities according to the agreement on consignment stock.
  - For replenishment following the use of items in the consignment stock the order contains trade items and quantities in accordance with the used trade items and quantities.
2. The supplier responds according to the contract (order acknowledgement and/or order confirmation, or no order response).
3. The supplier prepares a shipment containing the trade items and quantities according to the buyer's order.
4. The supplier sends a despatch advice and delivers the shipment to the buyer. In this scenario the despatch advice includes a reference to the buyer's order.
5. The buyer receives the shipment and performs a delivery reconciliation.



Scenario 1 is identical to collaboration process Place order followed by Deliver. See sections [3.8 Place order](#) and [3.9 Deliver](#) for a complete description of this scenario.

### 3.5.1.2 Scenario 2 – The supplier initiates replenishment

**Figure 3-16** Scenario 2 - The supplier initiates replenishment.



1. The supplier prepares a shipment.
  - For the initial stocking of the consignment stock the shipment contains trade items and quantities according to the agreement on consignment stock.
  - For replenishment following the use of items in the consignment stock the shipment contains trade items and quantities according to one or more Transfer of ownership reports and/or Consignment stock status reports.
2. The supplier sends a despatch advice and delivers the shipment to the buyer. In this scenario the despatch advice does not include a reference to an order, since no order has been sent. Instead, a reference to the contract on consignment stock is included.
3. The buyer receives the shipment and performs delivery reconciliation.

Scenario 2 is identical to collaboration process Deliver. See section [3.9 Deliver](#) for a complete description of this scenario.

### 3.5.1.3 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

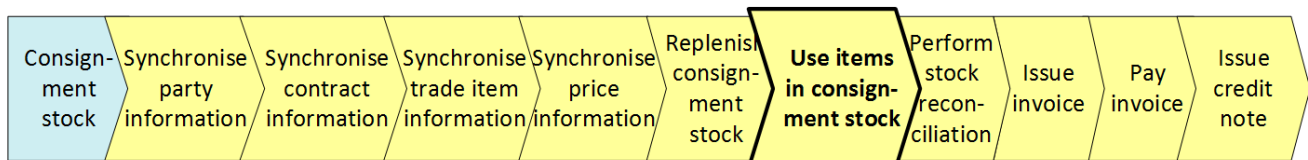
- Buyer and supplier have agreed on who is responsible for managing the consignment stock – the buyer or the supplier.

See also initial conditions for Place order (only valid for scenario 1 – The buyer initiates replenishment) and Deliver.

### 3.5.1.4 Termination conditions

See termination conditions for Deliver.

## 3.6 Use items in consignment stock



'Use items in consignment stock' describes the process by which the consigned products have been consumed by the care provider and the buyer informs the supplier of the usage. The supplier uses the information about the used items as input to the invoicing process. The information about the used items is also inputted to the replenishment process, which can be initiated by either the buyer or the supplier, according to the contract.



### 3.6.1 Scenario

When consignment items are removed from the consignment stock store room and are confirmed as used in a clinical procedure, the hospital's inventory management system is updated reflecting the stock transaction.

In a clinical process it is sometimes necessary to remove more items from the consignment stock store room than actually required. For example, three heart valves may be taken because the exact patient's need is unknown prior to the clinical procedure. When the clinical procedure is finished, the unused items are returned to the consignment stock provided that they are not compromised. The inventory management system must reflect the items used and the items that have not been used and have been physically returned to stock. Compromised stock is moved into an isolated and secured area, away from products fit for purpose, for later reconciliation, according to the contract. Inventory is adjusted as necessary to reflect the stock movements

The buyer issues a Transfer of ownership report which includes information about the used items, such as GTIN, quantity, batch number and serial number. This is sent to the supplier according to the time schedule agreed on in the contract.

**Figure 3-17** Scenario for Use items in consignment stock.



1. The process starts when the buyer removes an item from the consignment stock store room prior to a clinical procedure.
2. If the item is used in the clinical procedure, the buyer reports the usage to the supplier according to the time schedule agreed on in the contract. The inventory management system is updated with the information on the used item. If the item is not used in the clinical procedure, and not compromised, it is returned to the store room. If the item is compromised, it is moved into an isolated and secured area, away from products fit for purpose, for later reconciliation according to contract.
3. The supplier updates his inventory management system with the information on the used item and initiates the invoicing process.
4. The replenishment process is initiated by either the buyer or the supplier, according to contract.

#### 3.6.1.1 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between the buyer and the supplier.
2. Buyer and supplier have agreed to delivery and payment terms.
3. Party information for both buyer and supplier is available in both the buyer's and supplier's system.
4. The contracted product selection, including trade item characteristics, is synchronised and available to both parties.
5. Buyer and supplier have agreed on conditions for sending Transfer of ownership report.
6. Buyer and supplier have agreed on who is responsible for initiating replenishment – the buyer or the supplier.

### 3.6.1.2 Termination conditions

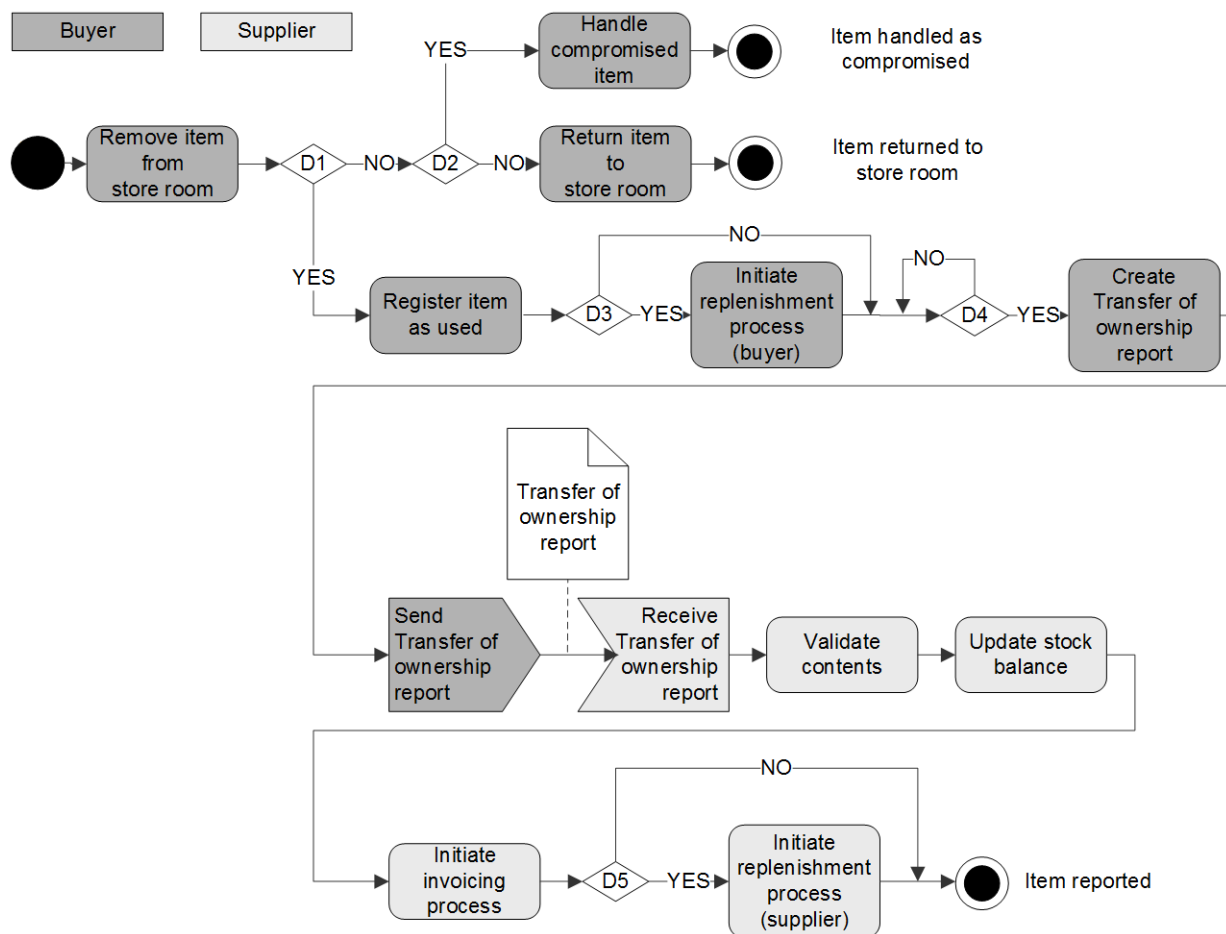
The process runs until one of the following conditions is satisfied:

1. The item is returned to the store room, **OR**
2. The item is handled as compromised, **OR**
3. The item is reported.

### 3.6.2 Detailed description of Use items in consignment stock

This section provides a detailed description of collaboration process Use items in consignment stock.

**Figure 3-18** Buyer's and supplier's steps when exchanging Transfer of ownership report.



Decision D1: Is item used in clinical procedure?

Decision D2: Is item compromised?

Decision D3: Is buyer responsible for initiating replenishment?

Decision D4: Is criteria for sending Transfer of ownership report met?

Decision D5: Is supplier responsible for initiating replenishment?

The steps shown in [Figure 3-18](#) are described below.

#### Remove item from store room

When an item is needed in the clinical procedure, it is taken out of the store room.

When moving the item out of the store room, it is recommended to scan the product barcode. The barcode includes the product identification (GTIN) and may also include information such as the batch number, expiry date and serial number. These data may be used to automatically record and execute the inventory transactions and financial transactions on the IT system. Also, the product data may be recorded on patient's clinical record for traceability and for future clinical care.

### **Handle compromised item**

If the trade item is compromised in the clinical procedure, it is moved into an isolated and secured area, away from products fit for purpose. The movement of the trade item must be recorded in the inventory management IT system. The information is used for later reconciliation according to contract, and as basis for the Consignment stock status report, see section [3.7 Perform stock reconciliation](#).

### **Return item to store room**

If the item is not used and not compromised in the clinical procedure, it is returned to the store room. When moving the item back into the store room, it is recommended to scan the product barcode.

### **Register item as used**

If the item is used in the clinical procedure, the item is registered as used in the buyer's inventory management IT system. The information is the basis for the Transfer of ownership report, as well as basis for verifying the subsequent invoice.

### **Initiate replenishment process (buyer)**

If the buyer is responsible for managing the consignment stock, the replenishment is initiated by the buyer placing a consignment order. See Scenario 1 in section [3.5 Replenish consignment stock](#).

### **Create Transfer of ownership report**

When the conditions for sending a Transfer of ownership report are fulfilled, a Transfer of ownership report is created. The conditions might for example be that a report is sent for a single item, for multiple items, for a single clinical area, for multiple clinical areas, and ad hoc or for a given day, week or month.

The Transfer of ownership report includes information about the used items, such as GTIN, batch number and serial number. The GTIN may be broken down to show particular quantities per batch/expiry/ and report individual serial numbers of items. This level of detail will facilitate suppliers to track consumption or withdrawals from the consigned stock. It will also enable auditing, tracking and reporting within the hospital.

### **Send and receive Transfer of ownership report**

The Transfer of ownership report is sent from the buyer and received by the supplier. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### **Validate contents**

Once the Transfer of ownership report has been received by the supplier's inventory management system, the following validations of the general information of the business document should be made:

1. That the Transfer of ownership report number has not previously been used by the buyer, i.e. there are no duplicates.
2. That the Transfer of ownership report creation date is reasonable.
3. That the reference to contract (if any) refers to a valid contract.
4. That the GLNs used in the Transfer of ownership report are known.
5. That the identified store room is included as a valid store room in the contract.
6. That the reported trade items (GTINs) are part of the consignment stock.
7. That the batch numbers (if any) for each reported trade item (GTIN) are matching the batch numbers for the same trade items that have been previously delivered to the buyer.
8. That the serial numbers (if any) for each reported trade item (GTIN) are matching the serial numbers for the same trade items that have been previously delivered to the buyer.
9. That the start and end dates for the consumption period for each reported trade item are according to contract.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Update stock balance

The inventory management IT system is updated with the information from the Transfer of ownership report.

### Initiate invoicing process

The invoicing process is initiated when the supplier receives the Transfer of ownership report.

For the invoicing process, see section [3.10 Issue invoice](#).

### Initiate replenishment process (supplier)

If the supplier is responsible for managing the consignment stock, the supplier initiates replenishment based on the Transfer of ownership report. In this case, the buyer will not issue any order.

For the replenishment process, see Scenario 2 in section [3.5 Replenish consignment stock](#).

## 3.6.3 Business document specification

This section gives an overview of the information contained in the business document used for synchronising information about the used items. The section also includes clarification of how the business document should be used for implementation and links to the complete specifications.

### 3.6.3.1 Transfer of ownership report

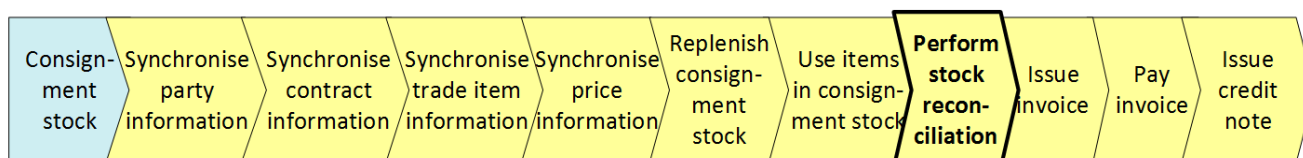
Business document Transfer of ownership report is issued by the buyer to inform the supplier that items have been used. This notification is a signal to which the supplier can issue an invoice.

#### Specifications for Transfer of ownership report

The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/transferofoownershipreport.zip>

## 3.7 Perform stock reconciliation



'Perform stock reconciliation' describes the process by which the items in the consignment stock are checked to ensure the accuracy of the stock counts, and the information from the stock check is transmitted to the supplier. The purpose of the 'Perform stock reconciliation' process is to make sure that the physical stock and the stock levels in the inventory management module in the IT systems of both the supplier and the buyer accurately match. This ensures contract compliance and the availability of items for clinical procedures.

In the process, the supplier may also regularly receive information on stock levels in between physical stock checks. In this case, the information will reflect the trade item stock levels of the hospital's inventory management system, and not the physical stock levels.

### 3.7.1 Scenario

**Figure 3-19** Scenario for Perform stock reconciliation.



1. The process starts when there is a need to perform stock reconciliation. This may occur when:
  - It is time to perform stock reconciliation according to an agreed schedule for periodic stock reconciliation.
  - Discrepancies between physical stock levels and the stock levels in the inventory management IT system are found in between the scheduled stock reconciliation.
2. A physical stock check is carried out, if the parties have agreed that this is part of the scheduled stock reconciliation.
3. The buyer sends a Consignment stock status report to the supplier. If, according to contract, the scheduled stock reconciliation includes a physical stock check, the Consignment stock status report will reflect the actual physical stock levels. Otherwise, the Consignment stock status report will reflect the trade item stock levels of the hospital's inventory management system.
4. The supplier analyses the information in the Consignment stock status report and decides on appropriate actions to take, for example correcting discrepancies between the consignment stock levels in supplier's and buyer's inventory management systems.

#### Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between the buyer and the supplier.
2. Party information for both buyer and supplier is available in both the buyer's and supplier's system.
3. Trade item information for the consignment stock is synchronised between the buyer's and supplier's inventory management IT systems.
4. Production data for the consignment stock is synchronised between the buyer's and supplier's inventory management IT systems.
5. Buyer and supplier have agreed on a schedule for periodic stock reconciliation (weekly, monthly...).

#### 3.7.1.1 Termination conditions

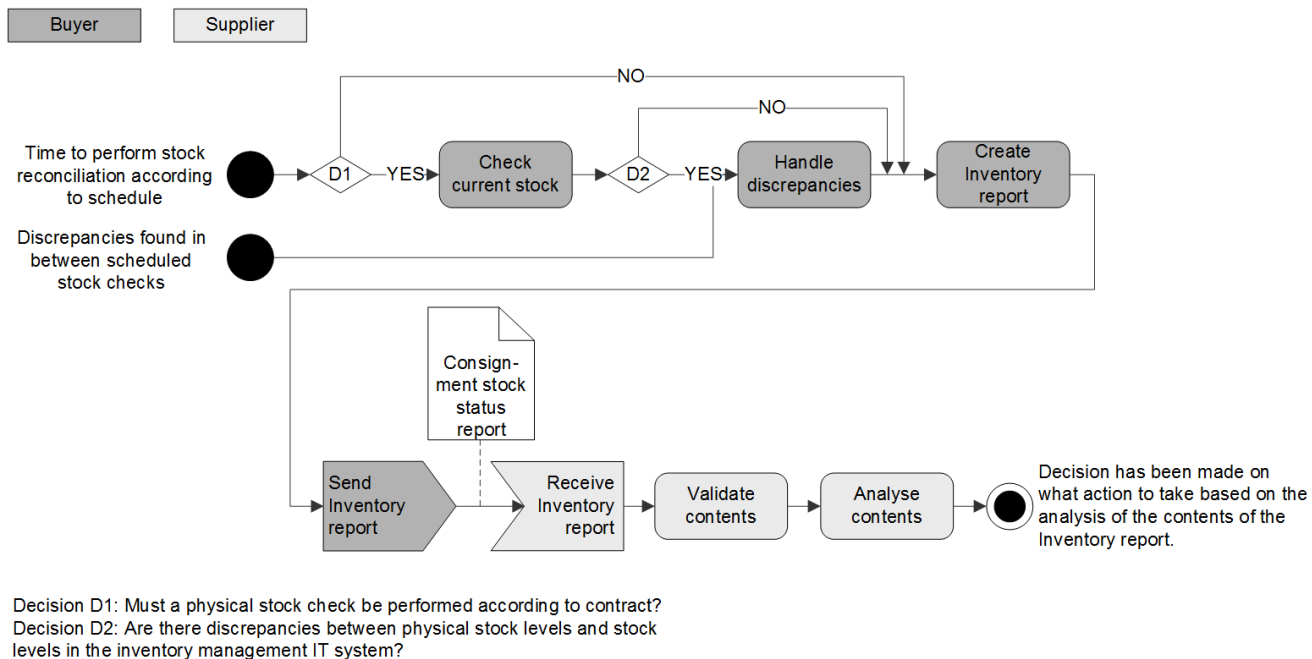
The process runs until the following condition is satisfied:

- The supplier has made a decision on what action to take based on an analysis of the contents of the Consignment stock status report.

### 3.7.2 Detailed description of Perform stock reconciliation

This section provides a detailed description of collaboration process Perform stock reconciliation.

**Figure 3-20** Buyer's and supplier's steps when exchanging Consignment stock status report.



The steps shown in [Figure 3-20](#) are described below.

#### Check current stock

Stock reconciliation is performed according to an agreed schedule. If, according to contract, a physical stock check is part of the stock reconciliation, physical stocks are counted, checked and recorded in the inventory management IT system. Discrepancies are recorded as one of the following:

- That the physical stock level is not in balance with the stock level in the inventory management IT system.
- That one or more instances of a trade item is not fit for purpose (damaged or compromised).

When performing the stock check, it is recommended to scan the product barcode on each trade item. The barcode includes the product identification (GTIN) and may also include information such as the batch number, expiry date and serial number. These data may be used to automatically record the stock taking in the IT system. The recordings of the stock taking are basis for the Consignment stock status report.

#### Handle discrepancies

If a trade item is found to be compromised, either during stocktaking or in between scheduled stock checks, it is moved into an isolated and secured area, away from products fit for purpose. The movement of the trade item, as well as the status as compromised, must be recorded in the inventory management IT system. The information is used for later reconciliation according to contract, and as basis for the Consignment stock status report.

#### Create Consignment stock status report

A Consignment stock status report includes the stock status for one and only one store room (one and only one GLN).

A Consignment stock status report is created at the following occasions:

- When a Consignment stock status report is to be sent according to the agreed schedule for stock reconciliation (with or without a preceding physical stock check).
- When discrepancies are found in between the scheduled stock reconciliation.

In the case when a physical stock check has been performed, the Consignment stock status report will reflect the actual physical stock levels. In the case when no physical stock check has been performed, the Consignment stock status report will reflect the trade item stock levels of the hospital's inventory management system.

In the case when discrepancies have been found in between the scheduled stock reconciliation, it is important to first correct the stock levels in the hospital's inventory management IT system before the Consignment stock status report is sent. The report may include information on either the entire stock or only the trade items with discrepancies, depending on the contract on consignment stock.

The Consignment stock status report assists the supplier in the stock reconciliation process. It includes information about the trade items in stock such as GTIN, quantity, batch number, serial number and expiry date and the storage location. The Consignment stock status report includes stock levels for trade items for a given supplier in a given store room. The Consignment stock status report includes trade items fit for purpose as well as trade items registered as not fit for purpose.

### **Send and receive Consignment stock status report**

The Consignment stock status report is sent from the buyer and received by the supplier. Read about receipt of business documents in Appendix Receipt of business document and exception handling

### **Validate contents**

Once the Consignment stock status report has been received by the supplier's inventory management system, the following validations of the general information of the business document should be made:

1. That the Consignment stock status report number has not previously been used by the buyer, i.e. that there are no duplicates.
2. That the Consignment stock status report creation date is reasonable.
3. That the reference to contract (if any) refers to a valid contract.
4. That the GLNs used in the Transfer of ownership report are known.
5. That the reported trade items (GTINs) are part of the consignment stock.
6. That a status and an inventoried quantity for the trade item is given for each line item.
7. That the batch numbers (if any) for each reported trade item (GTIN) are matching the batch numbers for the same trade items that have been previously delivered to the buyer.
8. That the serial numbers (if any) for each reported trade item (GTIN) are matching the serial numbers for the same trade items that have been previously delivered to the buyer.
9. That the identified store room belongs to the buyer.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### **Analyse contents**

By analysing the contents of the Consignment stock status report the supplier can decide if there is a need to:

- Analyse and correct discrepancies between the consignment stock levels in supplier's and buyer's inventory management systems.
- Replenish trade items, provided that the parties have agreed that a Consignment stock status report may trigger replenishment. For the replenishment process, see Scenario 2 in section [3.5 Replenish consignment stock](#).
- Take action on trade items close to expiry date.
- Take action on trade items that are not fit for purpose (damaged or compromised).

Based on the analysis the supplier takes appropriate action.

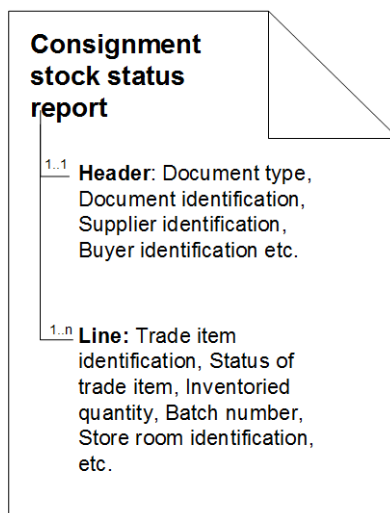
### 3.7.3 Business document specification

This section gives an overview of the information contained in the business document used for reconciling stock. The section also includes clarification of how the business document should be used for implementation and links to the complete specifications.

#### 3.7.3.1 Consignment stock status report

Business document Consignment stock status report is issued by the buyer to inform the supplier about the consignment stock status in one store room.

**Figure 3-21** Overview of the contents of business document Consignment stock status report.



#### Consignment stock status report header

The header contains information that identifies the business document and the parties involved.

#### Consignment stock status report line

A line occurs for each reported trade item in the store room for which the Consignment stock status report applies. It contains information about the trade item, such as:

- Identity of the trade item
- Production data, such as batch number and best before date
- Quantity used
- Identity of the store room

#### Specifications for Consignment stock status report

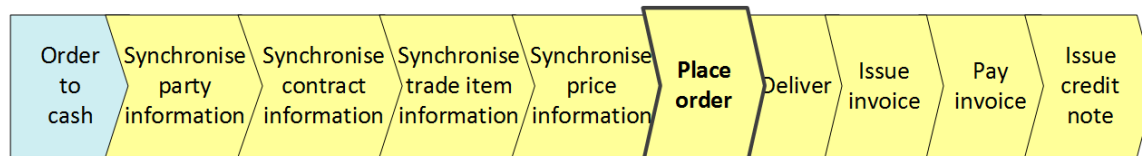
The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/consignmentstockstatusreport.zip>



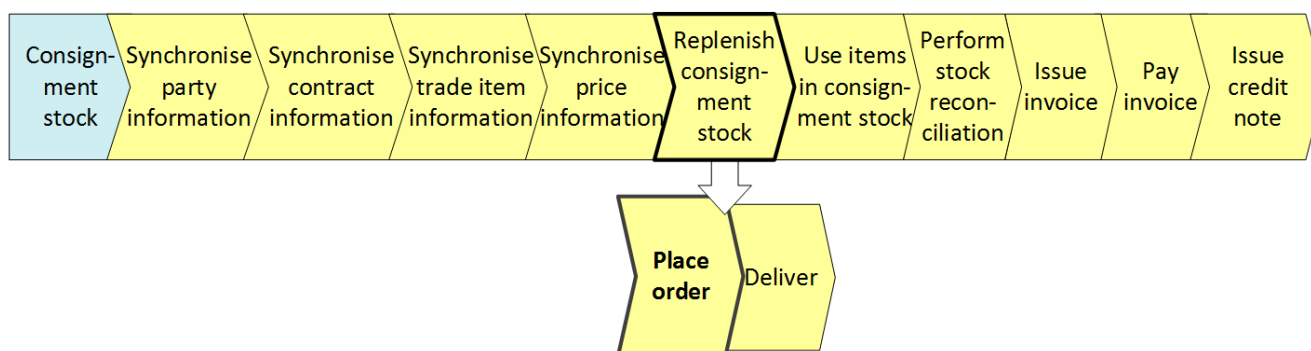
### 3.8 Place order

#### Scope for Place order in the Order to cash business process



'Place order' includes the processes by which buyer and supplier agree what should be delivered and on what terms, using order and order response.

#### Scope for Place order in the Consignment stock business process



'Place order' is part of collaboration process 'Replenish consignment stock'. 'Place order' is used when the **BUYER** is initiating replenishment of the consignment stock. See scenario 1 in section [3.5 Replenish consignment stock](#).

#### 3.8.1 Order types

There are different types of order: purchase order, rush order, blanket order, call-off order, and consignment order.

**Purchase order:** A purchase order is issued by a participant in the healthcare supply chain, such as a clinic within a hospital, to initiate the purchase of articles, materials or services. The order must be used according to a pre-agreed contract between the buyer and supplier.

**Rush order:** A rush order is used for urgent ordering. A rush order can be used if the buyer wants the supplier to prioritise the order. The rush order must be used according to a contract between the buyer and supplier.

**Blanket order:** A blanket order is a term contract or basic agreement between a buyer and a supplier. It is often used by the business partners to address recurring purchases of consumable supplies or services, for a specific period of time. A blanket order is issued to support an existing contract.

The quantities of each trade item specified in the blanket order are delivered according to call-off orders issued during the contract period. A blanket order cannot be used to order the delivery of trade items. A call-off order must be used for this purpose plus it must refer to the underlying blanket order.

**Call off order (synonym: release order):** A call-off order is used to order the delivery of trade items referring either to a previous blanket order or to the contract on trade items and prices.

**Consignment order:** A consignment order is an order to deliver goods into consignment stock with agreement on payment when goods from this stock are used. A consignment order may also be a rush order (use the business data term 'Delivery date time' to indicate the urgency) or a call off order (use reference to a previous blanket order or to the contract on trade items and prices).

In this document, 'Order' is used as a generic term regardless of which order type is used in the business process.

### Order types used in the Order to cash business process

In the Order to cash business process all the above order types except Consignment order can be used.

### Order types used in the Consignment stock business process

In the Consignment stock business process only order type Consignment order is used.

## 3.8.2 Scenarios

Within the Place order collaboration process, there are four different order scenarios. The parties can agree to use one of the following combinations of order and order response:

- Scenario 1 - Order.
- Scenario 2 - Order and Order receipt acknowledgement.
- Scenario 3 - Order and Order confirmation.
- Scenario 4 - Order, Order receipt acknowledgement and Order confirmation.

Trading partners agree among themselves on the scenario to be used, if necessary incorporating this into an interoperation agreement.

An **Order receipt acknowledgement** is sent directly after the supplier has received an Order. The Order receipt acknowledgement informs the buyer either that the Order has been successfully received by the supplier and will be processed further, or that the Order has been rejected and that the supplier will not process it further. Whether the Order is successfully received or rejected depends on the outcome of the validation of the Order. The validation checks, for example, that the order number has not been used previously by the buyer and that party information for the buyer and supplier is correct. The validation does not check if the supplier can deliver as ordered. This is checked at a later stage.

An **Order confirmation** is sent when the supplier's stock situation has been assessed, that is, when the supplier knows to what extent the order can be delivered. The supplier can confirm the entire Order and commits to delivering as ordered. The supplier can also confirm the Order with changes and commits to delivering with certain changes in the Order, such as a different delivery date. The parties agree in a pre-established contract what changes are permitted. If the supplier is unable to deliver anything, the Order confirmation can be used to reject the entire Order.

### 3.8.2.1 Scenario 1 – Order

**Figure 3-22** Scenario 1 – Order.

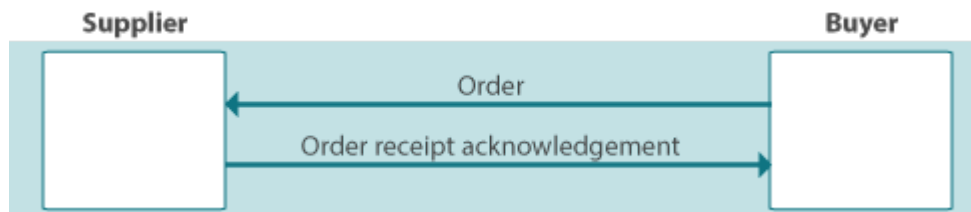


1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. Any exceptions arising from validation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.
4. The supplier compares the requested order quantity with the available inventory level.
5. Any exceptions arising from the assessment of the stock situation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.

Read the following sections: [3.8.3.1 Create Order](#), [3.8.3.3 Check stock levels](#)

### 3.8.2.2 Scenario 2 - Order and Order receipt acknowledgement

**Figure 3-23** Scenario 2 – Order and Order receipt acknowledgement.

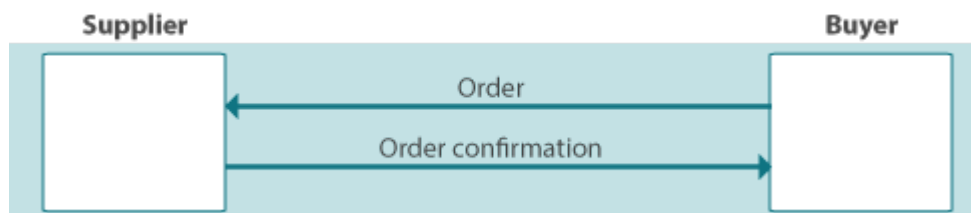


1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. The supplier sends an Order receipt acknowledgement to the buyer with the results of the validation.
4. The supplier compares the requested order quantity of the trade items against the available inventory level.
5. Any exceptions arising from the assessment of the stock situation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.

Read the following sections: [3.8.3.1 Create Order](#), [3.8.3.2 Acknowledge/Reject receipt of Order](#), [3.8.3.3 Check stock levels](#)

### 3.8.2.3 Scenario 3 – Order and Order confirmation

**Figure 3-24** Scenario 3 - Order and Order confirmation.

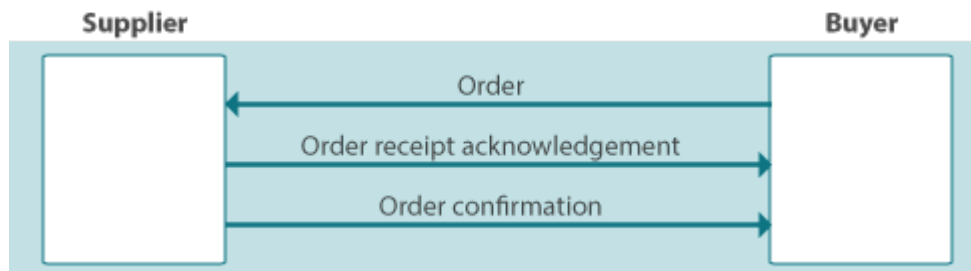


1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. Any exceptions arising from validation are handled by the supplier contacting the buyer by telephone, fax, e-mail or website.
4. The supplier compares the requested order quantity of the trade items against the available inventory levels.
5. The supplier sends an Order confirmation to the buyer with information as to what extent the supplier can deliver as ordered.

Read the following sections: [3.8.3.1 Create Order](#), [3.8.3.3 Check stock levels](#), [3.8.3.4 Confirm Order](#), [3.8.3.5 Confirm Order with changes](#).

### 3.8.2.4 Scenario 4 - Order, Order receipt acknowledgement and Order confirmation

**Figure 3-25** Scenario 4 - Order, Order receipt acknowledgement and Order confirmation.



1. The buyer places an Order with the supplier.
2. The supplier validates the content of the Order document.
3. The supplier sends an Order receipt acknowledgement to the buyer with the results of the validation.
4. The supplier compares the requested order quantity of the trade items against the available inventory levels.
5. The supplier sends an Order confirmation to the buyer with information as to what extent the supplier can deliver as ordered.

Read the following sections: [3.8.3.1 Create Order](#), [3.8.3.2 Acknowledge/Reject receipt of Order](#), [3.8.3.3 Check stock levels](#), [3.8.3.4 Confirm Order](#), [3.8.3.5 Confirm Order with changes](#).

### 3.8.2.5 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between the buyer and supplier.
2. Buyer and supplier have agreed to delivery and payment terms, including what changes the supplier may make in respect of an ordered trade item.
3. Party information for both buyer and supplier is available in both the buyer's and supplier's system.
4. The contracted product selection, including trade item characteristics, is synchronised and available to both parties for the ordering process.
5. Buyer and supplier have agreed conditions for how Order receipt acknowledgement and Order confirmation are to be used. The parties can agree on using one of the following combinations:
  - ☐ Neither Order receipt acknowledgement nor Order confirmation.
  - ☐ Order receipt acknowledgement.
  - ☐ Order confirmation.
  - ☐ Both Order receipt acknowledgement and Order confirmation.
6. Buyer and supplier have agreed if an Order may or may not be confirmed more than once, that is if more than one Order confirmation can be sent for the same Order, such as when back ordering is allowed.
7. Buyer and supplier have agreed whether receipts will be used for Order confirmations in the event that the parties are agreed that more than one Order confirmation can be sent for the same Order.

### 3.8.2.6 Termination conditions

The process runs until one of the following conditions are satisfied:

1. The supplier has rejected the Order. A rejection means that the supplier does not accept the Order and will not deliver the ordered trade items to the buyer, **or**

2. The supplier has confirmed the Order. Confirmation of an Order means that all necessary information about the upcoming delivery has been exchanged, the buyer has the basis for receipt reconciliation and the supplier knows exactly what is to be delivered. Everything is in order for the next phase, Deliver, to start, see section [3.9 Deliver](#).

### 3.8.2.7 Handling receipts for Order confirmations

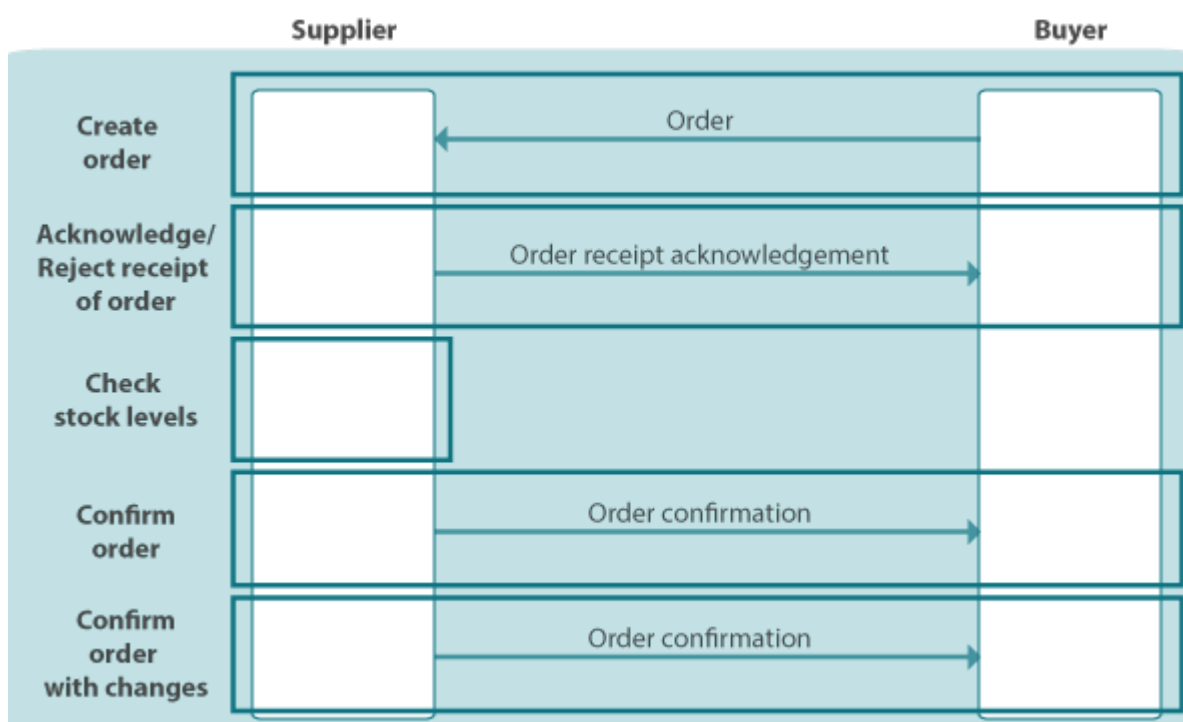
If the parties have agreed that more than one Order confirmation can be sent for the same Order, receipts are recommended. In this way the sequence of the Order confirmation documents can be ensured.

A receipt message from the buyer's system must arrive before a further Order confirmation for the same Order can be sent by the supplier. The parties must therefore agree a period (in minutes) during which the buyer's system which has received the Order confirmation must create and send a receipt message to the sending system at the supplier. The Technical Appendix to the interchange agreement specifies the item period for receipts. It must be ensured that the receiving EDI system reads the business transactions in the correct sequence.

### 3.8.3 Detailed description of Place order

This section provides a detailed description of how the collaboration process "Place order" is implemented.

**Figure 3-26** Place order



The section is divided into the following sections:

- [3.8.3.1 Create Order](#) describes how the buyer creates an Order and the supplier receives and validates the Order.
- [3.8.3.2 Acknowledge/Reject receipt of Order](#) describes how the supplier sends an Order receipt acknowledgement in order to inform the buyer that the Order is accepted or rejected based on the results of the validation.
- [3.8.3.3 Check stock levels](#) describes how the supplier checks the Order against stock levels.
- [3.8.3.4 Confirm Order](#) describes how the supplier sends an Order confirmation in order to inform the buyer that he has committed to delivering the ordered trade items.

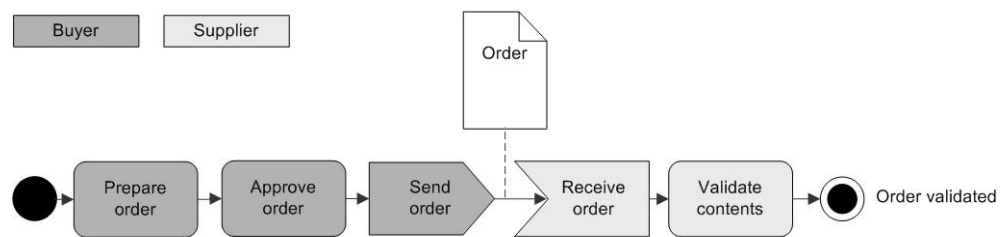
- [3.8.3.5 Confirm Order with changes](#) describes how the supplier sends an Order confirmation in order to inform the buyer that he can deliver with some changes from the Order or that he cannot deliver at all.

See section [3.8.2 Scenarios](#) for a listing of which subsections are applicable for each scenario.

### 3.8.3.1 Create Order

The figure below shows the steps that the parties should take before the business document Order is sent by the buyer and after it has been received by the supplier.

**Figure 3-27** Buyer's and supplier's steps when exchanging an Order.



The steps shown in [Figure 3-27](#) are described below.

#### Prepare Order

The buyer scans his Inventory Management module in his IT System for item(s) that need replenishing. The database contains information such as trade item, supplier and price, which has previously been synchronised, see sections [3.3 Synchronise trade item information](#) and [3.4 Synchronise price information](#).

When the buyer or Enterprise Resource Planning (ERP) system has selected one or more trade items and decided on quantities, the basis of an order is created. The business document specification *Order* shows which information is included in the business document, see section [3.8.4.1 Order](#) for an overview

#### Approve Order

Before the Order is sent to the supplier, it must be approved. Who should be authorised to make this approval varies between organisations. It might be the person making the Order or a specific authorisation may be required. In the latter case, the Order must be available to the signatory.

For traceability it is important to record who approved the Order and when.

It is also important to have procedures for approval in exceptional situations, e.g., when the signatory is not available and there is no deputy or when the order value exceeds the signatory's authority or simply that the signatory does not approve the Order.

#### Send and receive Order

When the Order has been approved it is sent to the supplier. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

In those cases where the parties have agreed to use one of the alternatives for order response, the buyer waits for the agreed response document (*Order receipt acknowledgement* or *Order confirmation*) to arrive according to the terms and within the time frame specified in the contract. This function can usefully be automated if a large number of orders are sent to many suppliers. The requestor can then be alerted if an order response does not arrive.

In order for the requestor and others with similar requirements to be able to follow the progress of a given order, the order should be updated with an appropriate status.

#### Validate Order

Once the Order has been received by the supplier's system the following validations of the general information of the business document should be made:

1. That the order number has not previously been used by the buyer, i.e. there are no duplicates.

2. That the order date is reasonable.
3. That the GLNs used in the Order are known.
4. That a reference to the contract is present in the Order if there is more than one frame contract between the supplier and the buyer. If no reference is present, it is assumed that there is only one contract.
5. That a reference to the price list is present in the Order if the original price list has been updated (by replacement or change) during the contract term. If no reference is present, it is assumed that only one price list has been exchanged.
6. That the requested delivery date is reasonable and within contract's delivery terms.

Note that at this stage only general order information is validated. Trade item identities and order quantities are validated at a later stage.

### Next

After validation the following takes place, depending on the results of the validation and whether the parties have agreed to use Order receipt acknowledgement or not:

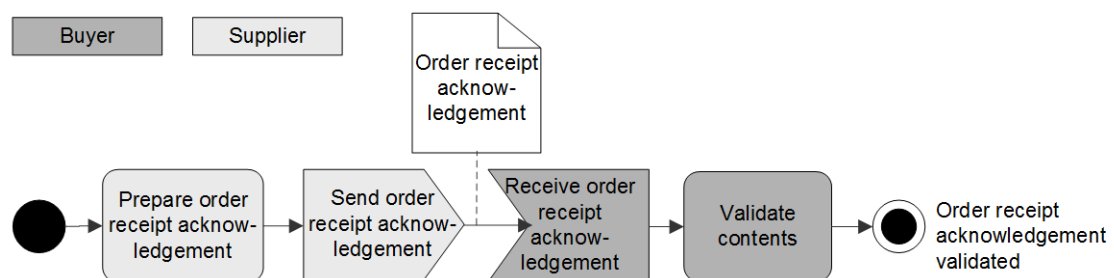
- If the Order does not validate correctly, and if the parties have agreed to use Order receipt acknowledgement, the supplier sends an Order receipt acknowledgement to the buyer to inform him that the Order is rejected, see section [3.8.3.2 Acknowledge/Reject receipt of Order](#). If the parties have agreed not to use Order receipt acknowledgement, the supplier should contact the buyer manually and inform him that the Order is rejected.
- If the Order does validate correctly, and if the parties have agreed to use Order receipt acknowledgement, the supplier sends an Order receipt acknowledgement to the buyer to inform him that the Order is accepted, see section [3.8.3.2 Acknowledge/Reject receipt of Order](#). If the parties have agreed not to use Order receipt acknowledgement, the supplier is assumed to have acknowledged receipt if he has not contacted the buyer within a given time period specified in the interchange agreement. In this case the supplier continues by checking his stock levels, see section [3.8.3.3 Check stock levels](#).

### 3.8.3.2 Acknowledge/Reject receipt of Order

When the supplier has validated the contents of the Order (see previous section: [Create Order](#)) he sends an Order receipt acknowledgement to the buyer. The Order receipt acknowledgement gives the buyer one of the following messages:

- That the Order is correct according to validation of contents and has been received but is not yet completely processed in the supplier's system.
- That the Order is not correct according to validation of contents and has been rejected.

**Figure 3-28** Buyer's and supplier's steps when exchanging an Order receipt acknowledgement.



The steps shown in [Figure 3-28](#) are described below.

#### Prepare Order receipt acknowledgement

The supplier prepares the Order receipt acknowledgement. The business document specification *Order receipt acknowledgement* shows which information is included in the business document, see section [3.8.4.2 Order Receipt Acknowledgement](#) for an overview.



### Send and receive Order receipt acknowledgement

The supplier sends the Order receipt acknowledgement to the buyer. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### Validate contents of Order receipt acknowledgement

Once the Order receipt acknowledgement has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties' e-commerce contract permits the exchange of Order receipt acknowledgement at this time.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Next

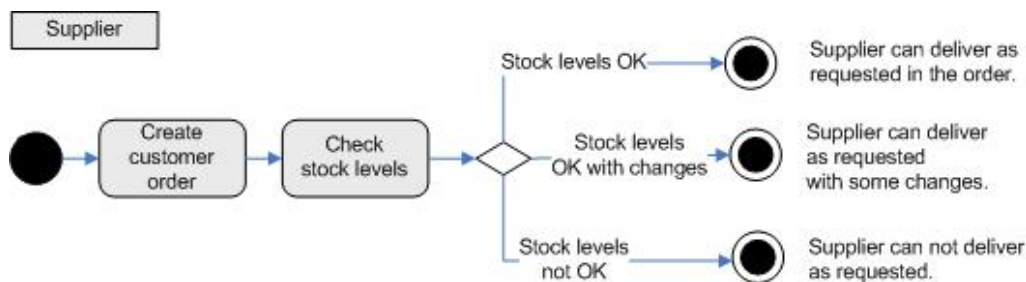
If the Order receipt acknowledgement validates correctly the following takes place, depending on the contents of the Order receipt acknowledgement:

- If the Order was rejected by the supplier, the buyer can continue by analysing the rejection reasons that have been sent by the supplier. Based on the result, the buyer can decide what action can be taken to satisfy the need for goods. One option is to send a new Order to the supplier with the errors corrected.
- If the Order receipt acknowledgement was accepted by the supplier, the buyer waits for an Order confirmation or a despatch advice, depending on what the parties have agreed. The supplier, on his part, continues to process the Order by checking it against stock levels, see next section [3.8.3.3 Check stock levels](#).

### 3.8.3.3 Check stock levels

When the supplier has received and validated the Order (see previous section [3.8.3.1 Create Order](#)) stock levels are checked to see if the supplier can deliver the trade items that were ordered.

**Figure 3-29** Supplier's steps when checking stock levels.



The steps shown in [Figure 3-29](#) are described below.

#### Create customer order

A customer order is created in the supplier's business system. To ensure traceability between the Order and the customer order, a unique reference to the Order message must be created. To ensure that customer orders are not duplicated a global document identifier can be used.

#### Check stock levels

The customer order is then checked against stock levels to determine whether the supplier can deliver the ordered trade items. It is also recommended that a check is made that the GTINs of the ordered trade items are valid and that the ordered quantities are reasonable. The stock control can have the following outcomes:

1. Stock control shows that the supplier can deliver as requested in the Order.
2. Stock control shows that the supplier can deliver as requested with some changes (change of delivery date, etc.).



3. Stock control shows that the supplier cannot deliver as requested.

### Next

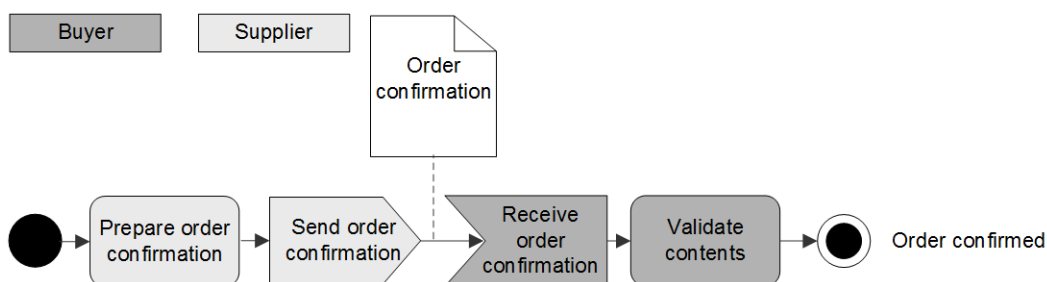
What happens next depends on the result of the stock level check as well as what order response messages the parties have agreed to use.

1. The supplier can deliver as requested in the Order.
  - a. If the parties have agreed to use Order confirmation, the supplier sends an Order confirmation to the buyer. See section [3.8.3.4 Confirm Order](#).
  - b. If the parties have agreed not to use Order confirmation, no message is sent to the buyer. Instead the supplier is assumed to have confirmed the Order unless he has contacted the buyer within a set period of time as specified in the interchange agreement.
1. The supplier can deliver as requested with some changes.
  - a. If the parties have agreed to use Order confirmation with changes, the supplier sends this to the buyer. See section [3.8.3.5 Confirm Order with changes](#).
  - b. Otherwise the supplier should contact the buyer and inform him of the changes.
2. The supplier cannot deliver.
  - a. If the parties have agreed to use Order confirmation with changes, the supplier sends a message where all ordered trade items are rejected. See section [3.8.3.5 Confirm Order with changes](#).
  - b. Otherwise the supplier should contact the buyer and inform him that nothing will be delivered.

### 3.8.3.4 Confirm Order

If stock level control shows that the supplier can deliver the ordered trade items (see section [3.8.3.3 Check stock levels](#)) and the parties have agreed to use Order confirmation, the supplier sends an Order confirmation to the buyer. Order confirmation informs the buyer that the supplier has committed to delivering the trade items.

**Figure 3-30** Buyer's and supplier's steps when exchanging Order confirmation.



The steps shown in [Figure 3-30](#) are described below.

#### Prepare Order confirmation

The supplier prepares the Order confirmation. The business document specification *Order confirmation* shows which information is included in the business document, see section [3.8.4.3 Order confirmation](#) for an overview.

#### Send and receive Order confirmation

The supplier sends the Order confirmation to the buyer. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

For document tracking it is desirable to log information on when a document was sent and, if possible, received by the recipient.

### Validate contents of Order confirmation

Once the Order confirmation has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties' e-commerce contract permits the exchange of Order confirmation at this time.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Next

When the Order has been confirmed, the supplier has committed to delivering the ordered items. However, it is possible that the supplier subsequently discovers that he cannot deliver as confirmed. It is then possible for the supplier to send an Order confirmation with changes to advise the buyer of this, see next section [3.8.3.5 Confirm Order with changes](#). If the parties have not agreed to use this process, then the supplier must contact the buyer and inform him of the changed situation.

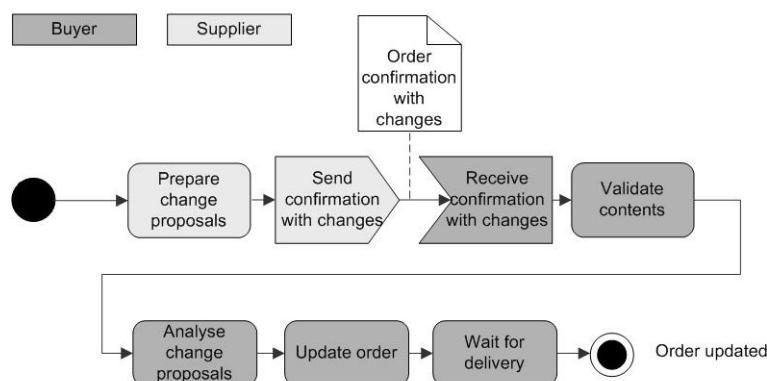
### 3.8.3.5 Confirm Order with changes

If stock control (see section [3.8.3.3 Check stock levels](#)) shows that the supplier can deliver, but with some changes from the Order, the supplier sends an Order confirmation with changes to the buyer, provided that the parties have agreed on this process.

Order confirmation with changes contains changes that the supplier proposes to make in the Order. An example is that an item is back-ordered and will be delivered at some, unspecified, future date.

Order confirmation with changes can also be used if the supplier cannot deliver at all. In this case all items in the Order are rejected.

**Figure 3-31** Buyer's and supplier's steps when exchanging Order confirmation with changes.



The steps shown in [Figure 3-31](#) are described below.

### Prepare change proposals

The supplier creates a change proposal. Possible changes in an Order confirmation are:

1. The entire order will be delivered on a date other than that requested.
2. An ordered item will be delivered on a date other than that requested (partial delivery).
3. An ordered item will be delivered on an unspecified future date (back-order).
4. A partial quantity of an ordered item will be delivered on a date other than that requested (partial delivery).
5. A partial quantity of an ordered item will be delivered on an unspecified future date (back-order).
6. A partial quantity of an ordered item is completely rejected.
7. An ordered item is completely rejected.

8. All ordered items are completely rejected (the order is rejected).
9. An ordered item is substituted wholly or partially with an alternate item.

The contract between the parties must specify which changes the supplier is permitted to make for a given item. For example, there must be explicit agreement that items may be substituted.

One Order confirmation can contain a number of changes and these can be of different types. For example, an item can be delivered on more than one occasion at the same time as part of the quantity is rejected.

In the case where an item is substituted with another (bullet 9 above), trade item information for the substitute item must be available in the buyer's business system. The contract specifies how much the substitute item may differ in quality and price from the substituted item.

#### **Send and receive Order confirmation**

When the proposed changes are ready, an Order confirmation is sent to the buyer. There must be agreement on the time frame for sending an Order confirmation to the buyer.

The business document specification *Order confirmation* shows which information is included in the business document, see section [3.8.4.3 Order confirmation](#) for an overview.

When the Order confirmation has been sent, the supplier updates the order status to "Order confirmation sent". Read about receipt of business documents in Appendix Receipt of business document and exception handling.

#### **Validate contents of Order confirmation**

Once the Order confirmation has been received by the buyer's system, the following validations of the content of the business document should be made:

1. That the sender's identity (GLN) is known.
2. That the parties have agreed to the exchange of Order confirmation with changes at this time.
3. That the identity of the Order confirmation has not already been used in a previous Order confirmation.
4. That the referenced Order (and referenced order lines) exists.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

#### **Analyse change proposals**

If the Order confirmation validates correctly, the buyer can continue by analysing what changes the supplier has proposed in the Order. It is essential that the requestor carrying out this analysis has complete information, where possible, on the consequences of the changes. If necessary, the requestor should contact the supplier for clarification.

#### **Contact supplier about unaccepted changes**

If the changes proposed do not fall within the agreed terms, they are not accepted. The buyer then contacts the supplier and requests new change proposals based on the original Order.

The supplier then sends a new Order confirmation containing changes that are within the agreed terms.

#### **Update Order**

If the analysis shows that the proposed changes are within the agreed terms, the Order is updated in the buyer's system. This means that the original Order is changed according to the Order confirmation.

It is therefore desirable that the purchasing system indicates for the user (requestor) that changes have been made. The updated order information is used subsequently for delivery reconciliation and in further document exchanges such as despatch advice and invoice.

### Wait for delivery

The system monitors that delivery is made within the time frames specified in the frame contract and Order (as updated by Order confirmation). Monitoring can be done manually if the system does not support this.

The order status in the buyer's system is changed from "Order sent" to "Order confirmed with changes". If all items were rejected, the status is changed to "Order rejected".

### Next steps

When the Order is confirmed with changes, the supplier has committed to delivering according to the agreed changes. However, it is possible that the supplier subsequently discovers that he cannot deliver as confirmed. It is then necessary for the supplier to inform the buyer of this. It is also possible that the supplier needs to advise the buyer of delivery dates for items that were back-ordered in a previous Order confirmation. It is possible for the supplier to send another Order confirmation with changes to update the already updated Order in the buyer's system.

All Order confirmation messages refer to the original Order since each new Order confirmation may only include changes relative to the immediately preceding Order confirmation.

If the parties have not agreed to use this process, then the supplier must contact the buyer and inform him of the changed situation.

Continue reading in section [3.9 Deliver](#) about how the ordered items are packed by the supplier, transported and delivered.

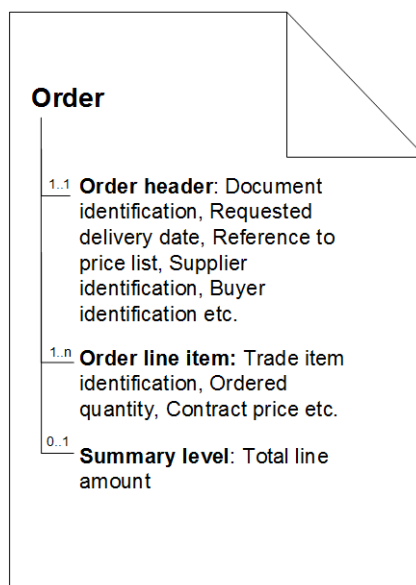
## 3.8.4 Business document specifications

The following sections give an overview of the information contained in the business documents of the Place order collaboration process. The sections also include clarification of how the various business documents should be used for implementation and links to the complete specifications.

### 3.8.4.1 Order

Business document Order is issued by the buyer to request a delivery of items from the supplier.

**Figure 3-32** Overview of the contents of business document Order.



#### Order Header

The Order Header contains information about the document, such as document identification and creation date, and identification of the parties involved (supplier, buyer).

The Order Header may also contain:

- Identification of the order type
- Currency for any amounts stated
- Delivery date
- Reference to a price list and/or a contract.

#### Order line item

An Order Line Item occurs once for each item being ordered. Each line item contains information which identifies the item and the quantity being ordered.

The order line may also contain price information. However, trade item price information is partner dependent master data which must be synchronised before ordering.

#### Summary Level

The Summary Level provides information about the total order amount. The summary level must only be used when the order lines contain trade item price information.

#### Specifications for order

The complete specifications can be found on:

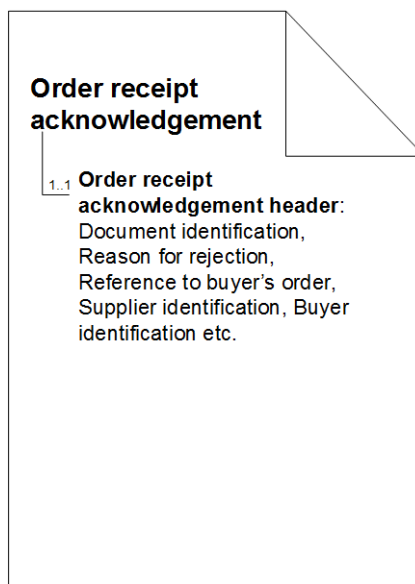
- <http://www.gs1.org/sites/default/files/docs/ecom/order.zip>

### 3.8.4.2 Order Receipt Acknowledgement

Business document Order Receipt Acknowledgement is sent from the supplier to the buyer and is used for two purposes:

- To inform the buyer that the Order has been received but has not yet been checked against stock levels.
- To inform the buyer that the Order document is erroneous and therefore rejected.

**Figure 3-33** Overview of the contents of business document Order receipt acknowledgement.



This business document consists only of a header which contains information about the document, such as document identification and creation date, and identification of the parties involved (supplier and buyer) as well as the order being referred to.

When this document is used to reject the whole order, the reason for rejection can be specified.

#### Specifications for Order Receipt Acknowledgement

The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/orderresponse.zip>

### 3.8.4.3 Order confirmation

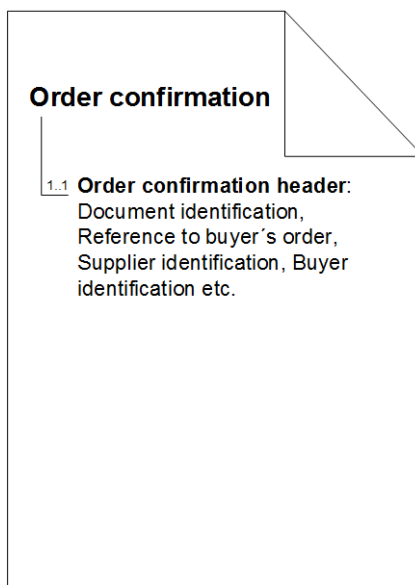
Business document Order confirmation is sent from the supplier to the buyer and is used to confirm an order. This business document can be used for three purposes:

- **To confirm an order in its entirety.** The supplier takes the responsibility for delivering the ordered items without any changes.
- **To reject an order in its entirety.**
- **To confirm an order and inform the buyer of any changes,** such as change of delivery date, **which the supplier wants to make.** The types of changes which the supplier may make is governed by the contract.

#### Confirm an order in its entirety

When this business document is used to confirm an order in its entirety, it consists only of a header which identifies the document, the parties involved and the order being confirmed.

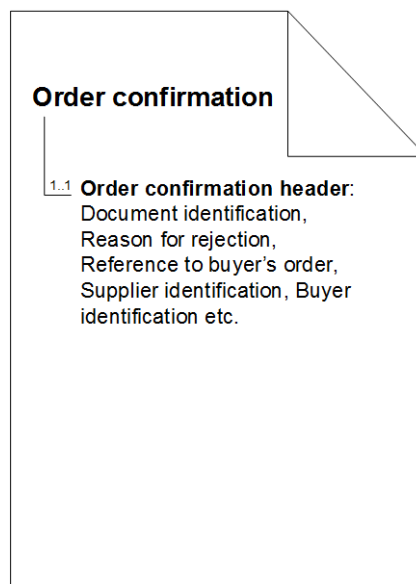
**Figure 3-34** Overview of the contents of business document Order confirmation when confirming the order in its entirety.



### Reject an order in its entirety

When this business document is used to reject an order in its entirety, it consists only of a header which identifies the document, the parties involved and the order being rejected. The reason for rejection can be specified.

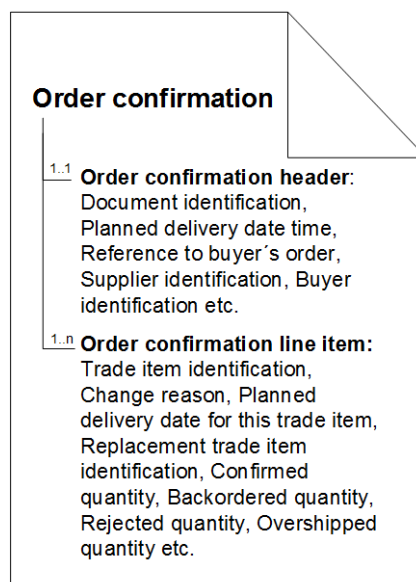
**Figure 3-35** Overview of business document Order confirmation when rejecting the order in its entirety.



### Confirm an order with changes

When this business document is used to confirm an order with changes, it consists of a header and line items.

**Figure 3-36** Overview of the contents of business document Order confirmation with proposed changes to the order.



### Order confirmation Header

The Order confirmation Header contains information that identifies the business document, the parties involved (supplier and buyer) and which order it refers to.

It is also possible to specify the planned delivery date if the supplier wants to deliver the items on another date than the requested delivery date specified by the buyer in the order. Note that this

delivery date applies to all items in the order. If the supplier wishes to change delivery dates for individual items, this can be done at line level. If the delivery date is the only change, the document consists only of a header.

### Order confirmation Line Item

An Order confirmation Line Item is used to reject or change a line item in the original order. Line items in the order that are not changed or rejected are not included in the order confirmation.

The following changes can be made at line item level:

- Change the delivery date of the entire ordered quantity of the item.
- Backorder the entire ordered quantity of the item. That is, the item will be delivered on an unspecified future date.
- Change the delivery date of part of the ordered quantity of the item.
- Backorder part of the ordered quantity of the item. That is, part of the ordered quantity will be delivered on an unspecified future date.
- Reject part of the ordered quantity of the item.
- Reject the entire ordered quantity of the item.
- Replace part of, or the entire, ordered quantity of the item with another item.
- Overship a quantity of the ordered item

The contract between the parties must specify which changes the supplier is permitted to make for a given item.

The reason for change of the ordered item can be specified at line item level.

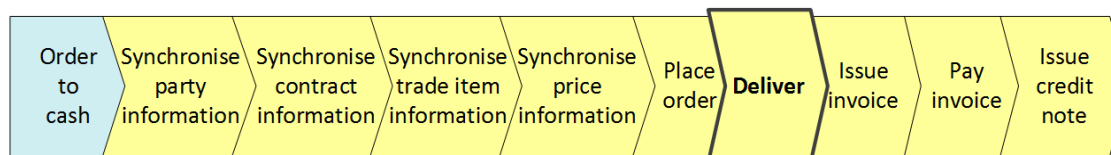
### Specifications for Order confirmation

The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/orderresponse.zip>

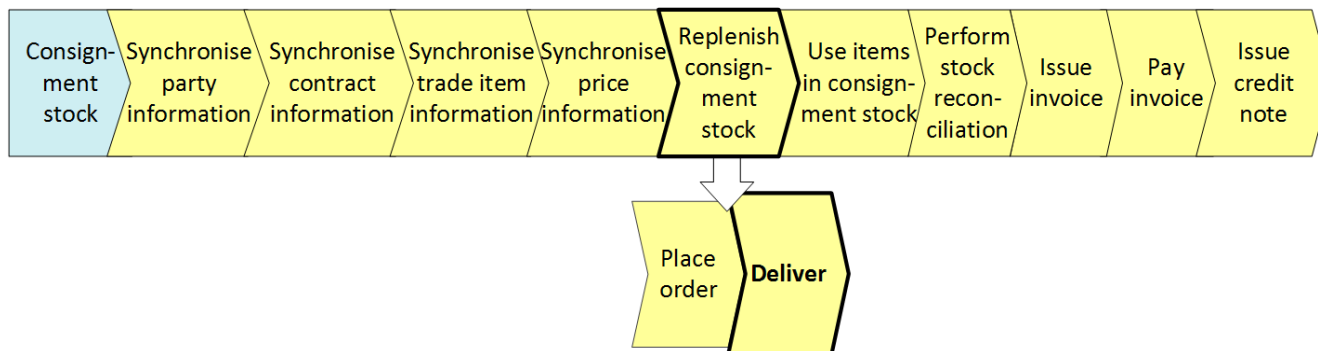
## 3.9 Deliver

### Scope for Deliver in the Order to cash business process



This process handles the delivery of goods that the buyer has ordered. The process covers activities from the preparation of the shipment and its transport through to its receipt and the registration of information needed for traceability and invoice reconciliation.

### Scope for Deliver in the Consignment stock business process



'Deliver' is part of collaboration process 'Replenish consignment stock'. For a description of 'Replenish consignment stock', see section [3.5 Replenish consignment stock](#). When the **BUYER** is



initiating the replenishment (Scenario 1 of 'Replenish consignment stock'), 'Deliver' follows collaboration process 'Place order'. When the **SUPPLIER** is initiating the replenishment (Scenario 2 of 'Replenish consignment stock'), 'Deliver' is used independently (that is, collaboration process 'Place order' is not used in Scenario 2).

### 3.9.1 Despatch advice types

There are two different despatch advice types: Despatch advice and Consignment despatch advice.

**Despatch advice:** A Despatch advice is used by the supplier to inform the buyer about the despatch of goods in the Order to cash business process. Payment is made when the goods has been delivered.

**Consignment despatch advice:** A Consignment despatch advice is used by the supplier to inform the buyer about the despatch of goods in the Consignment business process. Payment is made when goods from the consignment stock are used.

When a Consignment despatch advice has been used to advice a delivery, the despatch advice will not constitute basis for invoicing, since for the Consignment stock business process invoicing will not take place until the delivered goods have been used.

The code for Consignment despatch advice can be used to program the buyer's system to not check the invoice against the despatch advice, but instead use the Transfer of ownership report(s) as basis for checking invoiced items.

In this document, 'Despatch advice' is used as a generic term regardless of which despatch advice type is used in the business process.

#### Despatch advice type used in the Order to cash business process

In the Order to cash business process only despatch advice type Despatch advice is used.

#### Despatch advice type used in the Consignment stock business process

In the Consignment stock business process only despatch advice type Consignment despatch advice is used.

### 3.9.2 Scenarios

Within the Deliver collaboration process, there are two scenarios regarding the delivery reconciliation:

1. Excluding receiving advice.
2. Including receiving advice.

Trading partners agree among themselves on the scenario used, if necessary incorporating this into an interoperation agreement.

#### 3.9.2.1 Scenario 1 – Excluding receiving advice

**Figure 3-37** Scenario 1 – Excluding receiving advice



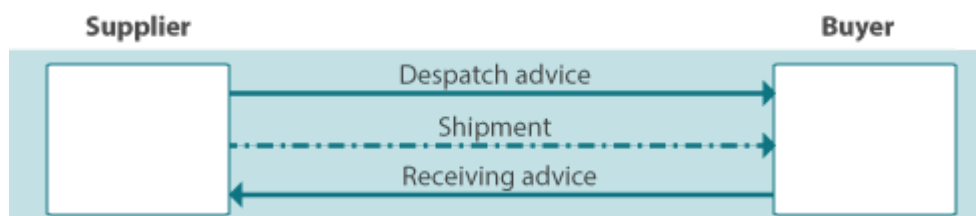
For the Order to cash business process and for the Consignment stock business process when the BUYER initiates replenishment, the Deliver process starts when the supplier has accepted an order from the buyer.

For Consignment stock business process when the SUPPLIER initiates replenishment, the Deliver process starts when the supplier decides that there is a need to replenish the consignment stock, based on one or more Transfer of ownership reports and/or Consignment stock status reports.

1. The supplier prepares the shipment. Logistic units are labelled with the appropriate GS1 logistic label including the barcoded SSCC. Transport documents are prepared for the carrier.
2. When the shipment is ready to leave the supplier a despatch advice is sent to the recipient. The despatch advice describes exactly which logistic units are included in the shipment. Since the despatch advice should arrive before the goods, the recipient can plan for their arrival.
3. The carrier collects the shipment (consisting of logistic units and associated documentation) and delivers them to the recipient. Transport can be handled by the buyer, supplier or a third party.
4. The recipient receives the shipment and checks that the correct goods have been received and that no goods have been damaged during transport.
5. If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the buyer informs the supplier about the discrepancies via e-mail, telephone or other agreed communication channel.

### 3.9.2.2 Scenario 2 – Including receiving advice

**Figure 3-38** Scenario 2 - Including receiving advice



1. See step 1 of scenario 1.
2. See step 2 of scenario 1.
3. See step 3 of scenario 1.
4. See step 4 of scenario 1.
5. The buyer sends a receiving advice to the supplier. If delivery reconciliation shows that all items have been correctly delivered, the receiving advice confirms receipt of the goods. If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the receiving advice notifies on the discrepancies.

### 3.9.2.3 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A contract has been established between buyer and seller.
2. Conditions for payment and delivery have been specified.
3. Party information for buyer and supplier has been input to both the buyer's and supplier's systems.
4. Buyer and supplier have agreed whether or not to use a receiving advice.
5. Buyer and supplier have agreed on how discrepancies, if any, between the despatch advice and the items delivered shall be handled.

The following initial condition is valid for the Order to cash business process and for the Consignment stock business process, when the BUYER initiates replenishment:

6. The supplier has confirmed that he will deliver according to the buyer's order (possibly with changes agreed by the buyer).

The following initial condition is valid for business process Consignment stock, when the SUPPLIER initiates replenishment:

7. The supplier has received basis for replenishment from the buyer, that is, one or more Transfer of ownership reports or Consignment stock status reports.

#### 3.9.2.4 Termination conditions, scenario 1

For scenario 1, the process runs until one of the following conditions are satisfied:

1. Delivery without discrepancies is registered in the buyer's system, **or**
2. The supplier is informed of the discrepancies between the despatch advice and the items delivered.

### 3.9.2.5 Termination conditions, scenario 2

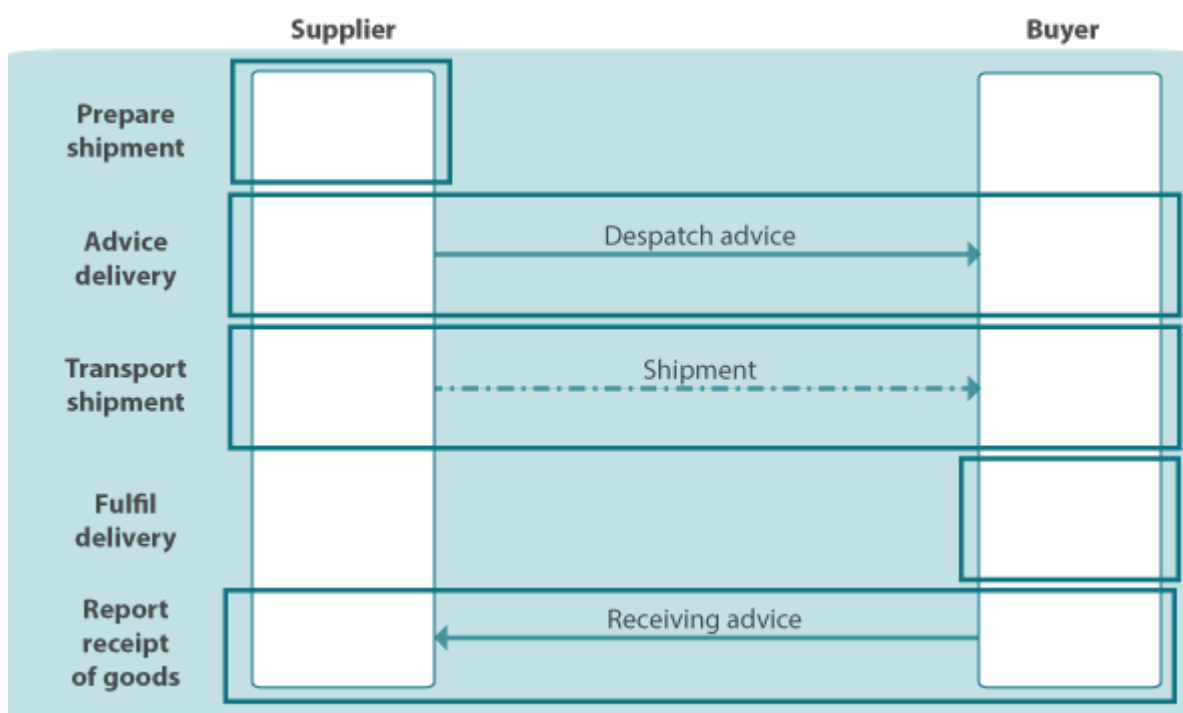
For scenario 2, the process runs until the following condition is satisfied:

- The supplier has received the receiving advice.

### 3.9.3 Detailed description of Deliver

This section provides a detailed description of how the collaboration process 'Deliver' is implemented.

### Figure 3-39 Deliver



The section is divided into the following sections:

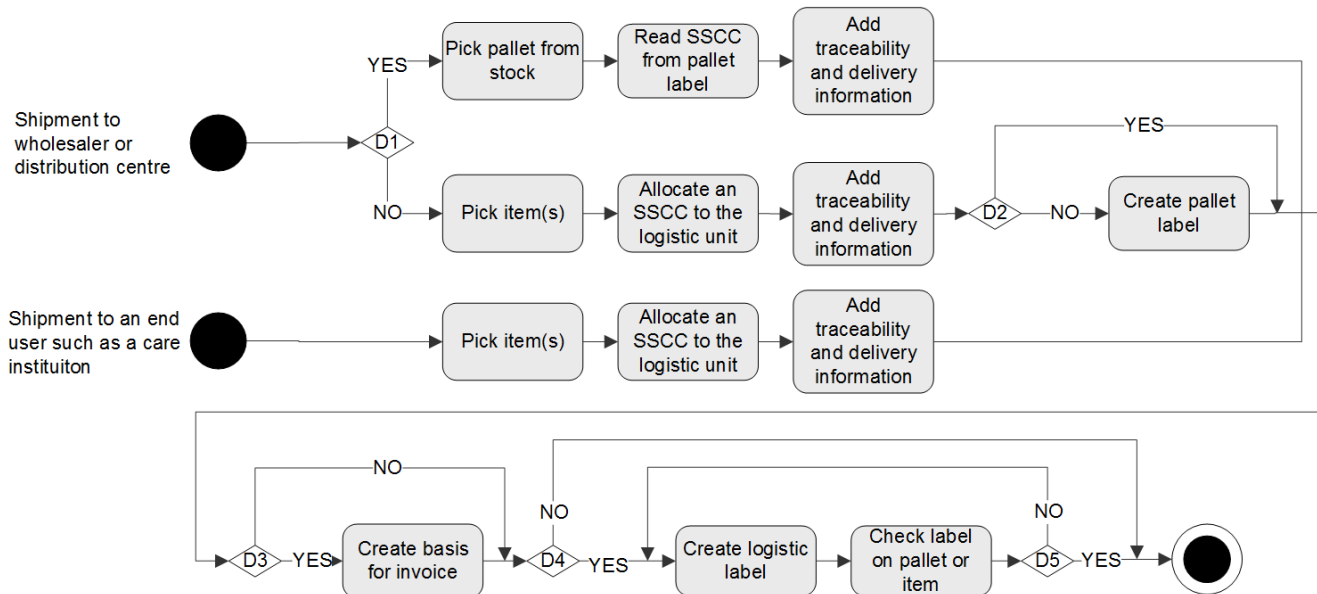
- [3.9.3.1 Prepare shipment](#) describes how the supplier prepares the logistic units that are to be included in the shipment.
- [3.9.3.2 Advice delivery](#) describes how the supplier sends a despatch advice to inform the buyer of the upcoming delivery.
- [3.9.3.3 Transport shipment](#) describes how the shipment is transported to the buyer.
- [3.9.3.4 Fulfil delivery](#) describes how the consignee receives the shipment.

- [3.9.3.5 Report receipt of goods](#) describes how the buyer sends a receiving advice to inform the supplier of the result of the delivery reconciliation at goods receipt.

### 3.9.3.1 Prepare shipment

The figure below shows the steps that the supplier should take when preparing a shipment.

**Figure 3-40** Supplier's steps when preparing shipment



Decision D1: Is the supplier delivering full pallets directly from stock?

Decision D2: Is there a contract with the carrier that the transport unit shall have a logistic label?

Decision D3: Is business process Order to cash used?

Decision D4: Is logistic label required according to contract?

Decision D5: Is label OK?

The steps shown in [Figure 3-40](#) are described below.

The method of preparing a shipment differs slightly depending on whether the recipient is a wholesaler/ distribution centre or an end user such as a care institution, as described below.

#### Shipment to wholesaler or distribution centre

A wholesaler or distribution centre orders in sufficiently large volumes that the supplier can deliver full pallets directly from stock. In such cases, the pallet is picked from stock and the SSCC read from the logistic label printed at the production line.

On the other hand, if the buyer has ordered so few packages of the same type that the supplier cannot deliver full pallets, the supplier picks the ordered packages onto a unit load device (ULD) such as a pallet or roll-cage. Information on which items are on the device is input for subsequent use in the despatch advice. The ULD is then given an SSCC. The ULD is then considered as a logistic unit.

As well as the SSCC, other relevant information, such as best-before date and batch number, needed to create a despatch advice is collected. This data can originate in several different ways:

1. From the production system.
2. If a homogeneous pallet is fetched direct from stock and the contents have the same best-before date and batch number, the information can be read from the logistic label.
3. If the supplier has instead picked the ordered packages, then the information in barcoded format can be read from either the logistic label for the pallet or from the label on each package picked from the pallet.

If there is a contract with the carrier that the transport unit shall have a logistic label, a pallet label is not needed. Otherwise a pallet label is printed and affixed to the transport unit.

The supplier then prepares the basis for an invoice and, if required, transport labels. Read more in section *Create basis for invoice* below.

### **Shipment to care institutions**

The supplier picks the packages onto a unit load device such as a pallet or roll-cage. Information on which items are on the device is input for subsequent use in despatch advice.

The logistic units in the delivery are identified with an SSCC. As well as the SSCC, other relevant information about the items on the pallet, such as best-before date and batch number, needed to create a despatch advice is collected. This data can be read from the logistic labels or fetched from the production system. The supplier then prepares the basis for an invoice and, if required, transport labels. Read more in section *Create basis for invoice* below.

### **Create basis for invoice**

For the Order to cash business process the invoice is raised based on the shipped trade items.

Shipment information such as delivery date, delivery address, reference to despatch advice and delivered trade items and quantities are to be used when creating the invoice.

NOTE: This step is not applicable for the Consignment stock business process. For the Consignment stock business process the invoice is raised based on the Transfer of ownership report.

### **Create logistic label**

When a logistic label is required according to the contract between the supplier and the carrier or the supplier and the buyer, the logistic units are to be labelled. A logistic label per logistic unit is created and printed. The logistic label gives the carrier information to ensure that the logistic unit is delivered to the right place and enables efficient receipt of goods.

The Standard International Logistic Label (STILL)<sup>1</sup> is the GS1 recommendation on what data in the human readable and barcoded format is recommended to be used on the GS1 Logistics Label to facilitate efficient handling of the logistics units in the warehousing and transport processes. It recommends the best contents for the label(s) within the framework of the relationship between logistic services client (retailer or supplier), carrier and logistic services provider.

### **Check labels on pallet or items**

Before the logistic unit is released for shipment the label should be checked to ensure that it is correctly positioned on the logistic unit and contains the correct information. The following checks should be made:

1. That the information on the label is correct.
2. That the placement rules have been followed.
3. That the logistic unit is marked with only one SSCC, i.e. if the logistic unit has both pallet label and logistic label, then the logistic label should not include an SSCC. If there are technical reasons which prevent the suppression of the SSCC on the logistic label, then the SSCC must be identical to that on the pallet label.

If the label is not correctly placed and/or does not contain the correct information, this must be corrected.

When the labels are correctly positioned and contain the correct information, the logistic units are ready for shipment. The next step is for the supplier to send a despatch advice to the buyer, see next section.

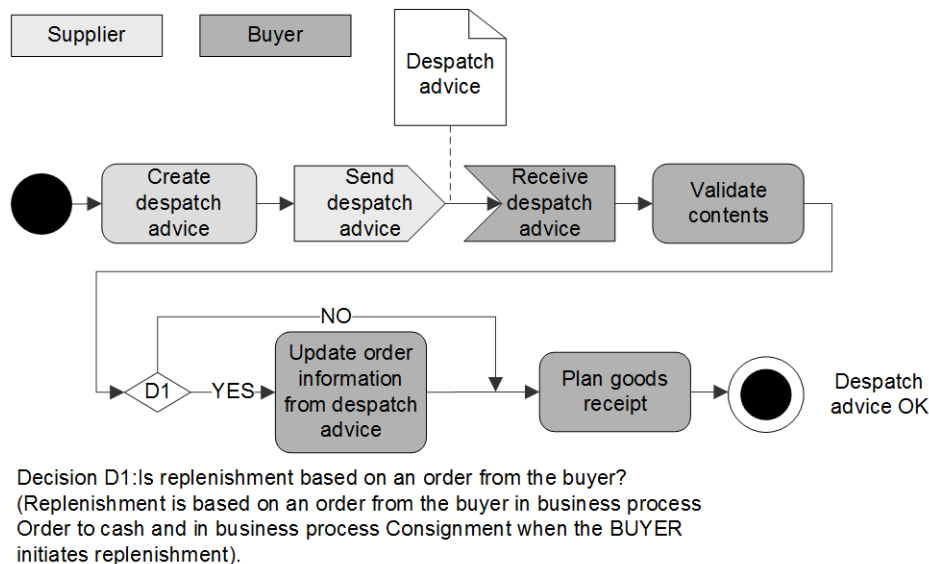
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<sup>1</sup> Standard International Logistic Label (STILL) [http://www.gs1.org/docs/tl/GS1\\_Logistic\\_Label\\_Guideline.pdf](http://www.gs1.org/docs/tl/GS1_Logistic_Label_Guideline.pdf)

### 3.9.3.2 Advice delivery

The figure below shows the steps that supplier and buyer take before and after transmission of the despatch advice.

**Figure 3-41** Buyer's and supplier's steps when exchanging despatch advice.



The steps shown in [Figure 3-41](#) are described below.

#### Create despatch advice

When the shipment is ready to leave the sender, a despatch advice should be sent to the buyer. The despatch advice specifies the contents of the shipment.

Business document specification *Despatch advice* shows which information is included in the business document, see section [3.9.4.1 Despatch advice](#) for an overview.

NOTE: The lists below give important advice on the contents of the despatch advice. The lists are grouped according to business process.

#### Order to cash business process:

1. The despatch advice type must be 'Despatch advice'.
2. A despatch advice shall correspond exactly to the packages that are being shipped. This means that the despatch advice cannot be prepared before the logistic units are ready for shipment.
3. All items from the same order sent from the same shipper to a physical delivery point in one shipment shall be specified in one and the same despatch advice.
4. The despatch advice must refer to the order from the buyer.
5. One order from the buyer can result in more than one shipment. For each shipment a despatch advice shall be issued.

**Consignment stock business process**, when the **BUYER** has initiated 'First stocking of items' and/or 'Replenish consignment stock'. This means that the buyer has sent an order to the supplier:

1. The despatch advice type must be 'Consignment despatch advice'.
2. A despatch advice shall correspond exactly to the packages that are being shipped. This means that the despatch advice cannot be prepared before the logistic units are ready for shipment.
3. All items from the same order sent from the same shipper to a physical delivery point in one shipment shall be specified in one and the same despatch advice.
4. The despatch advice must refer to the order from the buyer.
5. One order from the buyer can result in more than one shipment. For each shipment a despatch advice shall be issued.

**Consignment stock business process**, when the **SUPPLIER** has initiated 'First stocking of items' and/or 'Replenish consignment stock': This means that no order has been sent from the buyer to the supplier:

1. The despatch advice type must be 'Consignment despatch advice'.
2. A despatch advice shall correspond exactly to the packages that are being shipped. This means that the despatch advice cannot be prepared before the logistic units are ready for shipment.
3. The despatch advice must refer to the contract on consignment stock.
4. All items sent from the same shipper to a physical delivery point in one shipment shall be specified in one and the same despatch advice.

### Send and receive despatch advice

The despatch advice is sent to the buyer. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### Validate contents of despatch advice

Once the despatch advice has been received by the buyer's system the following validations of the content of the business document should be made:

1. That the despatch advice number has not previously been used by the buyer, i.e. there are no duplicates.
2. That the despatch advice date is reasonable.
3. That the GLNs used in the despatch advice header are known and valid.
4. That a contract exists.

The following validation is valid for Order to cash business process and for Consignment stock business process, when the **BUYER** initiates replenishment

5. That the despatch advice refers to an order from the buyer.

The following validation is valid for Consignment stock business process when the **SUPPLIER** initiates replenishment.

6. That the despatch advice refers to a contract on consignment stock.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Update order information from despatch advice

If the replenishment is based on an Order, the order information is updated from the despatch advice. (Replenishment is based on an Order in Order to cash business process and in Consignment stock business process, when the **BUYER** initiates replenishment).

Information from the despatch advice is prepared for reconciliation when the goods are delivered. This information can also be used at a later time, for example in new contract negotiations. Invoice reconciliation is also prepared using the despatch advice.

The following updates are made:

1. If items were substituted when the delivery was prepared and this was contractually acceptable, then order information in the internal system is updated from the despatch advice.
2. For variable measure items (e.g., variable weight) the shipped quantity can differ from the ordered quantity. In such cases, the buyer's system is updated with the shipped quantity which permits subsequent invoice reconciliation.

When the updates are complete the order is ready for invoice reconciliation.



**Note:** This step is not applicable for Consignment stock business process, when the **SUPPLIER** initiates replenishment.

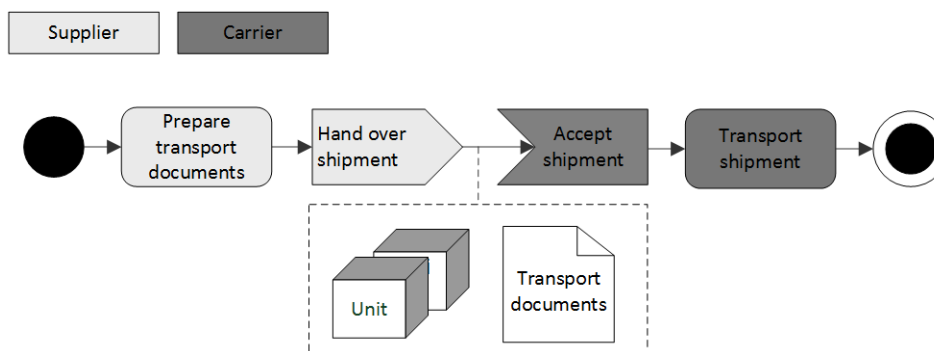
### Plan goods receipt

Since the despatch advice arrives before the goods the consignee can plan receipt using information from his item database. This can include choosing chilled, dry or frozen storage, etc.

#### 3.9.3.3 Transport shipment

The figure below shows the steps which the supplier and the carrier carry out when transporting the shipment.

**Figure 3-42** Supplier's and carrier's steps when transporting the shipment.



The steps shown in [Figure 3-42](#) are described below.

#### Prepare transport documents

The supplier creates a transport document which shows the number of logistic units that the carrier is to transport for the supplier's account as well as the delivery address. It is signed-off by the recipient upon delivery as confirmation that responsibility has passed to the recipient.

#### Hand over shipment

The supplier hands the shipment over to the carrier. The shipment consists of logistic units with logistic labels (see [http://www.gs1.org/docs/tl/GS1\\_Logistic\\_Label\\_Guideline.pdf](http://www.gs1.org/docs/tl/GS1_Logistic_Label_Guideline.pdf)), and transport documents.

#### Accept shipment and Transport shipment

The carrier accepts the shipment and also accepts responsibility for the shipment. The carrier then transports the shipment to the given delivery address.

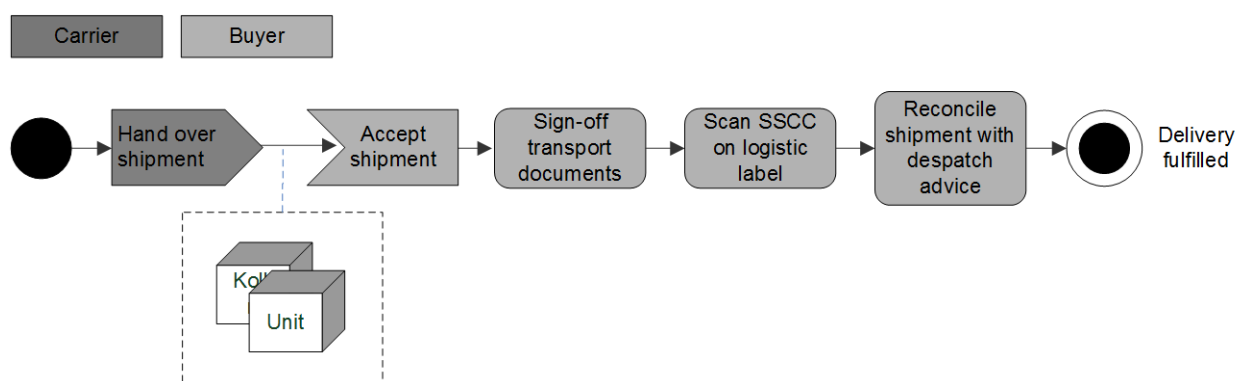
The carrier can be a third party logistics provider who has been contracted by the supplier or the buyer, or it can be the supplier or buyer himself who provides the transport (i.e. takes the carrier role). The buyer and supplier have agreed where responsibility for the shipment passes from one party to the other and thus who is responsible during transport. If a third party carrier is used, then the transfer of responsibility is governed by the transport contract.

#### 3.9.3.4 Fulfil delivery

The figure below shows the steps which the carrier and the buyer carry out when the shipment is delivered.



**Figure 3-43** Carrier's and buyer's steps when fulfilling delivery.



The steps shown in [Figure 3-43](#) are described below.

### Hand over shipment

The carrier hands over the shipment to the consignee. The shipment consists of logistic units with logistic labels<sup>2</sup> and transport documents.

### Accept shipment

The consignee accepts the shipment from the carrier. An initial check of the shipment is made as follows:

1. That all pallets are undamaged.
2. That all logistic units are correctly addressed.
3. That the number of logistic units agrees with the transport documents.

The division of responsibility for transport that has been agreed between buyer and supplier determines who the buyer should contact with claims regarding damage in transit.

### Sign-off transport documents

If the shipment is OK at delivery check, the consignee signs the transport documents as evidence of receipt for the carrier. This implies that responsibility for the goods has been transferred to the buyer.

If the shipment is not OK at delivery check, i.e. that some logistic units are damaged or that not all logistic units have been delivered, then the consignee signs the transport documents adding information on any irregularities.

Receipt of the logistic units does not mean that the buyer has automatically accepted the quality of the incoming items. This may be checked later.

### Scan SSCC on logistic label

The bar-coded SSCC on the logistic label is read from a terminal connected to the buyer's business system. Using the SSCC as a key, the logistic unit is associated with the appropriate despatch advice and the information it contains.

Information from the despatch advice is used in the following systems:

- Warehouse management.
- Traceability.
- Accounts payable for invoice reconciliation.

### Reconcile shipment with despatch advice

Using the despatch advice as reference, the consignee checks that the correct items have been delivered.

This check depends on how the logistic units are handled as follows:

<sup>2</sup> Standard International Logistic Label (STILL), [http://www.gs1.org/docs/tl/GS1\\_Logistic\\_Label\\_Guideline.pdf](http://www.gs1.org/docs/tl/GS1_Logistic_Label_Guideline.pdf)

### Alternative 1. The logistic units are placed directly in the warehouse.

1. Check that all logistic units specified in the despatch advice have been delivered.
2. Note any discrepancies from the despatch advice.

### Alternative 2. The contents of the logistic units are unpacked.

1. For each logistic unit, identified by an SSCC, check that the items contained correspond to the despatch advice.
2. Note any discrepancies from the despatch advice.

If delivery reconciliation shows that all items have been correctly delivered, then this is input to the business system and signed off by an authorised person. This allows subsequent invoice reconciliation to take place automatically.

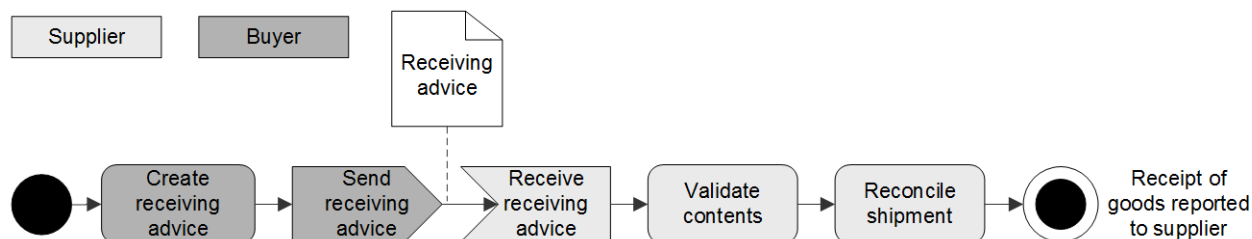
If delivery reconciliation shows discrepancies between the despatch advice and the items delivered, then these are noted for invoice correction and error reports to the supplier.

If the parties have agreed to use a receiving advice to report the results of the delivery reconciliation, the buyer sends a receiving advice to the supplier, see next section [3.9.3.5 Report receipt of goods](#). If the parties have not agreed to use a receiving advice, and if the delivery reconciliation shows discrepancies between the despatch advice and the items delivered, the buyer must contact the supplier and inform him about the discrepancies.

### 3.9.3.5 Report receipt of goods

The figure below shows the steps that buyer and supplier take before and after transmission of the receiving advice

**Figure 3-44** Buyer's and supplier's steps when reporting the receipt of goods.



The steps shown in [Figure 3-44](#) are described below.

#### Create receiving advice

The buyer creates a receiving advice to report the results of the delivery reconciliation (see previous section). The receiving advice is used for one of two purposes:

- To confirm the receipt and acceptance of trade items as reported in the despatch advice, **OR**
- To notify on discrepancies between trade items received and accepted and trade items as reported in the despatch advice.

The receiving advice should be sent within a commercially agreed time period, for example 24 hours after receipt of goods.

Business document specification *receiving advice* shows which information is included in the business document, see section [3.9.4.2 Receiving advice](#) for an overview.

#### Send and receive receiving advice

The receiving advice is sent to the supplier. Read about receipt of business documents in Appendix Receipt of business document and exception handling.

#### Validate contents of receiving advice

Once the receiving advice has been received by the supplier's system the following validations of the content of the business document should be made:

1. That the receiving advice number has not previously been used by the supplier, i.e. there are no duplicates.
2. That the receiving advice date is reasonable.
3. That the GLNs used in the receiving advice header are known and valid.
4. That a contract exists.
5. That the receiving advice refers to a despatch advice.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

#### Reconcile shipment

To reconcile the shipment the supplier may use the receiving advice to compare the items reported as received and accepted or rejected by the buyer with data regarding logistics and transport information.

For the items reported as not accepted, these may be subjected to further dispute resolution processing between the supplier and the buyer.

For the **Order to cash business process** the receiving advice is linked to the invoicing process (not applicable for the Consignment stock business process). Depending on the contract between the buyer and the supplier, the invoicing process may be one of two alternatives:

- The supplier creates an invoice after having received the receiving advice. The invoice reflects the information in the receiving advice. The invoice must include a reference to the receiving advice.
- The supplier creates an invoice after having sent the despatch advice and prior to receiving the receiving advice. If parts of the shipment was not accepted by the buyer credit notes may be issued. The credit note must include references to the invoice and the receiving advice.

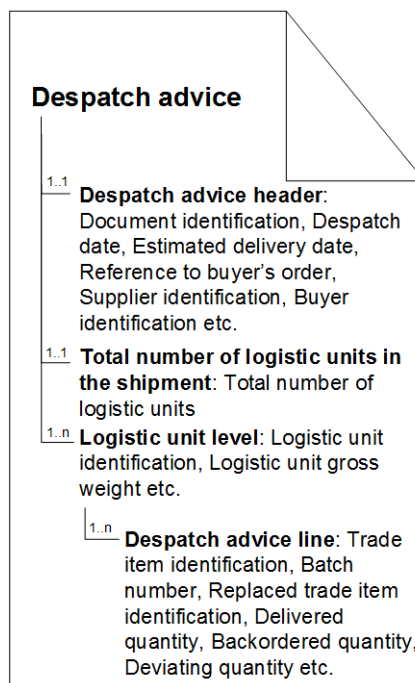
### 3.9.4 Business document specifications

The following sections give an overview of the information contained in the business document used for transmitting delivery information. They also include clarification of how the business documents should be used for implementation and links to the complete specifications.

### 3.9.4.1 Despatch advice

The supplier uses the Despatch advice to inform the buyer of a pending shipment. The despatch advice describes the logistic units that are part of the shipment and how these are grouped. The business document is a list of logistic units with each line containing a list of items included.

**Figure 3-45** Overview of the contents of business document Despatch advice.



#### Despatch advice header

The header contains information that identifies the business document and the parties involved (supplier and buyer, including the delivery address).

The header also contains:

- Type of despatch advice: Despatch advice or Consignment despatch advice.
- Despatch date.
- Delivery date.
- Which order the despatch advice refers to.

✓ **Note:** Reference to order is not applicable for the Consignment stock business process when the SUPPLIER initiates replenishment.

- Which delivery note the despatch advice refers to.
- Transport information: Identity of the carrier and/or mode of transport.

#### Total number of logistic units in the shipment

The total number of logistic units in the shipment is specified here.

#### Logistic unit level

The logistic unit level contains information about the logistic unit, such as SSCC (Serial Shipping Container Code), logistic unit marking type, gross weight and number of packages included in the logistic unit. The logistic unit level also contains a despatch advice line for each item in the logistic unit.

### Despatch advice line

A despatch advice line occurs for each trade item in the logistic unit. It contains information about the trade item, such as:

- The identity of the trade item.
- Production data, such as batch number and best before date.
- If the trade item is a replacement item, the identity of the replaced (ordered) item can be specified.
- Advised quantity of the trade item. The quantity can be specified as delivered, backordered and/or rejected.
- Advised free goods quantity.
- Reference to order line. A trade item from one order line can be split across several logistic units in the same shipment. A reference to the order line allows the despatch advice to be reconciled with the order.

NOTE: Reference to order line is not applicable for Consignment stock business process when the SUPPLIER initiates replenishment.

### Specifications for Despatch advice

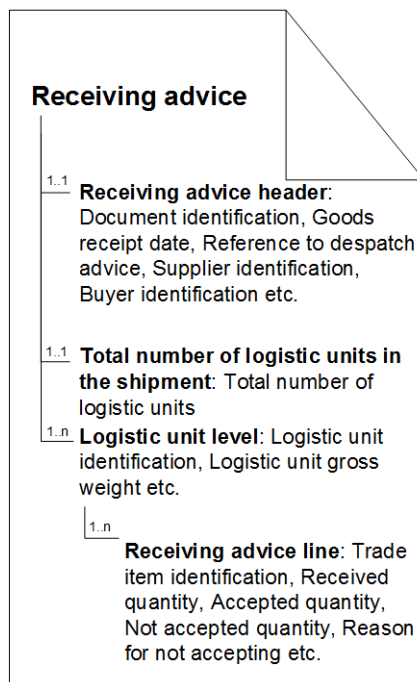
The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/despatchadvice.zip>

#### 3.9.4.2 Receiving advice

The supplier uses the Receiving advice to inform the buyer of a shipment received and processed at the buyer's delivery point or at the consignee. The receiving advice describes what has been received and the outcome of the receipt process. The business document is a list of logistic units with each line containing a list of items included.

**Figure 3-46** Overview of the contents of business document Receiving advice.



When the receiving advice is used to confirm the complete shipment as received and accepted only the header is used.

When the receiving advice is used to report discrepancies between the received and accepted trade items, and the trade items as reported in the despatch advice, both the header, logistic unit level and receiving advice line are used.

### Receiving advice header

The header contains information that identifies the business document and the parties involved (supplier and buyer).

The header also contains:

- Receiving advice function: Confirming shipment as accepted or Reporting discrepancies.
- Goods receipt date.
- Which despatch advice the receiving advice refers to.

### Total number of logistic units in the shipment

The total number of logistic units in the shipment is specified here.

### Logistic unit level

The logistic unit level contains information about the received logistic unit, such as SSCC (Serial Shipping Container Code), logistic unit marking type, gross weight and number of packages included in the logistic unit. The logistic unit level also contains a receiving advice line for each item in the logistic unit.

### Receiving advice line

A receiving advice line occurs for each trade item in the logistic unit. It contains information about the trade item, such as:

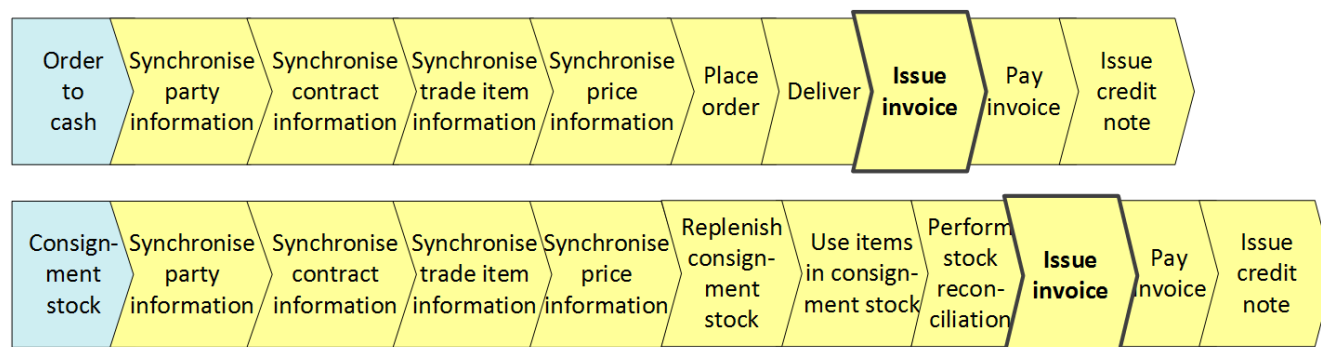
- The identity of the received trade item.
- The received quantity of the trade item.
- The quantity of the received trade item that is accepted by the buyer.
- The quantity variance of a received trade item that is not accepted by the buyer. The quantity may be positive or negative.
- The reason for not accepting the quantity variance.

### Specifications for Receiving advice

The complete specifications can be found on:

<http://www.gs1.org/sites/default/files/docs/ecom/receivingadvice.zip>

## 3.10 Issue invoice

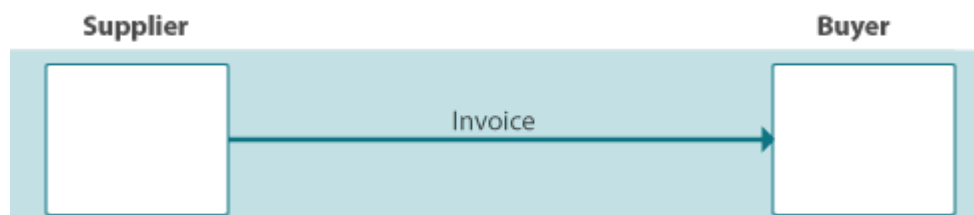


'Issue invoice' includes the processes by which the supplier issues an invoice requesting payment either for delivered trade items (Order to cash business process) or for trade items which have been reported as used by the buyer (Consignment stock business process).

The purpose is to ensure that the buyer has sufficient information to enable a payment and update accounting systems.

### 3.10.1 Scenario

**Figure 3-47** Scenario - Issue invoice.



1. The supplier prepares the invoice and sends it to the buyer.
2. The buyer receives the invoice and processes it in preparation for payment.
3. The buyer approves the payment.

#### 3.10.1.1 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business agreement has been established between buyer and supplier.
2. Contractual conditions regarding trade items, price and party information has been synchronised between the buyer's and supplier's business systems.
3. Buyer and supplier have agreed on what condition must be fulfilled before the invoice can be sent to the buyer. The condition may be one of the following:
  - That the supplier has sent a despatch advice to the buyer (Order to cash business process).
  - That the supplier has received a receiving advice from the buyer (Order to cash business process).
  - That the supplier has received one or more reports on used trade items (Transfer of ownership report) from the buyer (Consignment stock business process).

#### 3.10.1.2 Termination conditions

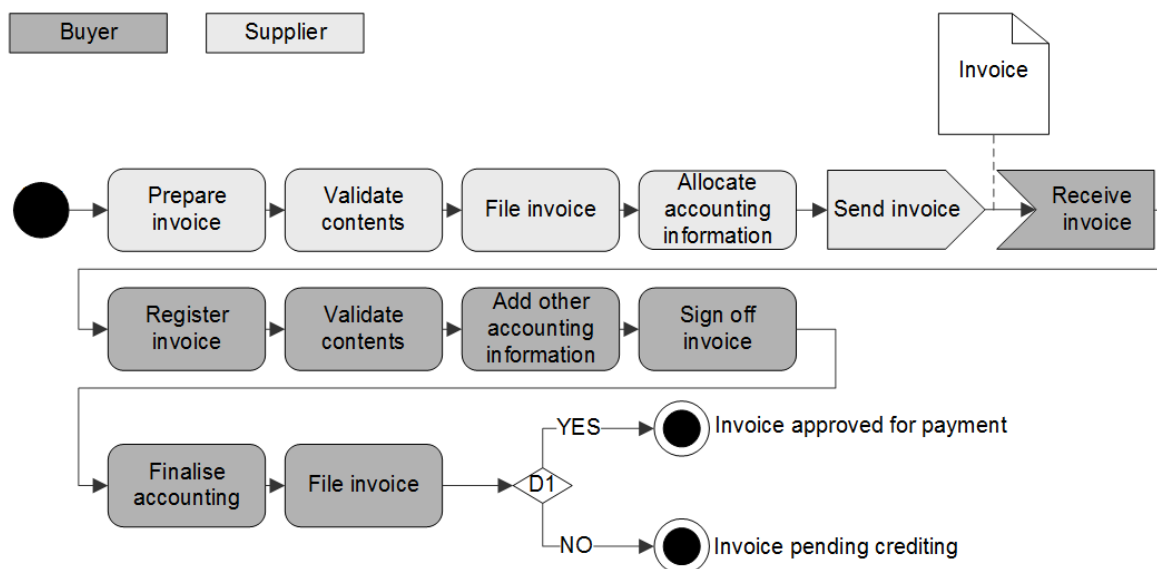
The process runs until one of the following conditions are satisfied:

1. The invoice is approved for payment. Buyer and supplier wait for payment to be made. **OR**
2. The invoice is held pending crediting. The buyer waits for a credit note.

### 3.10.2 Detailed description of Issue invoice

This section provides a detailed description of collaboration process Issue invoice.

**Figure 3-48** Buyer's and supplier's steps when exchanging invoice.



Decision D1: Is the invoice approved for payment by the buyer?

The steps shown in [Figure 3-48](#) are described below.

#### Supplier step: Prepare invoice

The supplier starts preparing an invoice when the condition for sending an invoice, which the parties have agreed upon, has been fulfilled. The supplier prepares the invoice either from the data captured during the delivery process (Order to cash business process) or from the reports on used trade items sent from the buyer (Consignment stock business process). The business document specification *Invoice* shows which information is included in the business document, see section [3.10.3.1 Invoice](#) for an overview.

#### Supplier step: Validate contents of invoice

The following validations of the contents of the invoice should be made before sending it:

##### Validation points at invoice header level:

1. That the invoice number (**Document identification**) has not previously been used by the supplier. To ensure that duplicates are never raised, the supplier can use a Global Document ID as the invoice number.
2. That the creation date of the invoice (**Creation date time**) is specified and according to agreed terms.
3. That the currency applicable for the whole invoice (**Currency, code**) is specified.
4. That the tax point date (**Tax point date**) is used according to national tax legislation. In some countries it is required to state tax point date if the tax point date is different from the creation date of the invoice (**Creation date time**) or is different from the date the goods were delivered (**Actual delivery date time**).
5. That the due date for payment (**Payment due date**), if any, is consistent with the agreed payment terms.
6. That the invoice refers to valid agreements, including agreed contract prices (**Reference to contract**). If this information is missing, it should be assumed that contract and price



information exchanged previously applies. If several contracts exist during the same contract period, then the invoice must refer to the contract that the invoice is based on.

7. That the identification (GLN) of the supplier, buyer and any other parties specified in the invoice, corresponds with those in the order (Order to cash business process) or corresponds with those in the contract (Consignment stock business process). (**Supplier identification, GLN. Buyer identification, GLN. Payee identification, GLN. Consignee identification, GLN. Delivery place identification, GLN**).
8. That the reason for a charge (**Document charge reason**), if any, is given if this is required according to contract or national tax legislation.
9. That the reason for an allowance (**Document allowance reason**), if any, is given if this is required according to contract or national tax legislation.
10. That the **Invoice total amount in accounting currency** is given if the **Tax accounting currency, code** differs from the invoice currency (**Currency, code**).
11. That the **Invoice line amount = Invoiced quantity × Contract price**.
12. That all total amounts at document level are present and correctly calculated:
  - a. That the **Sum of invoice line amount =  $\Sigma$  Invoice line amount**.
  - b. That the **Sum of allowances on document level =  $\Sigma$  Document level allowance amount**.
  - c. That the **Sum of charges on document level =  $\Sigma$  Document level charge amount**.
  - d. That the **Invoice total amount without tax = Sum of invoice line amount - Sum of allowances on document level + Sum of charges on document level**.
  - e. That the **Invoice total amount with tax = Invoice total amount without tax + Invoice total tax amount**.
  - f. That the **Invoice total tax amount =  $\Sigma$  Tax category tax amount**.
  - g. That the **Amount due for payment = Invoice total amount without tax + Invoice total tax amount**.
13. **Tax breakdown**, if used:

That the **Tax category taxable amount =  $\Sigma$  Invoice line amount +  $\Sigma$  Document level charge amount -  $\Sigma$  Document level allowance amount** for each different value of tax category rate (**Tax category rate**, e.g., 25) for a specific tax type (**Tax type code**, e.g., VAT) and a specific tax category (**Tax category code**, e.g., standard).
14. That the reason for tax exemption (**Tax exemption reason**) is given if no tax is invoiced and a statement of the reason must be given according to national tax legislation.

#### **Validation points at invoice line level:**

15. That the GTIN of the invoiced trade item (**Trade item identification, GTIN**) is the same as the GTIN of the delivered trade item.
16. That the quantity of the invoiced trade item (**Invoiced quantity**) is the same as the quantity of the delivered trade item.
17. That the invoiced price for each invoiced item is according to contract. (**Contract price. Contract price base quantity. Contract price base quantity unit of measure**).
18. That the reason for a charge (**Invoice line charge reason**), if any, is given if this is required according to contract or national tax legislation.
19. That the reason for an allowance (**Invoice line allowance reason**), if any, is given if this is required according to contract or national tax legislation.
20. That the reason for tax exemption (**Invoiced item tax exemption reason**) is given if no tax is invoiced for a specific trade item and a statement of the reason must be given according to national tax legislation.

### Validation points regarding references at header OR line level:

- 21.** That a reference to the buyer's order (**Reference to the buyer's order**) is given as a document level reference, **OR**  
That references to each buyer's order are given as invoice line references when more than one delivery is invoiced in an invoice instance and when deliveries can be derived from more than one order. (Applies to Order to cash business process).
- 22.** That a reference to the transfer of ownership report (**Reference to transfer of ownership report**) is given as a document level reference, **OR**  
That references to each transfer of ownership report are given as invoice line references when trade items are invoiced based on more than one transfer of ownership reports. (Applies to Consignment stock business process).
- 23.** That a reference to the despatch advice (**Reference to despatch advice**) is given as a document level reference, if an electronic despatch advice has been sent/received, **OR**  
That references to each despatch advice are given as invoice line references when more than one delivery is invoiced in an invoice instance, if electronic despatch advices have been sent/received. (Applies to Order to cash business process).
- 24.** That a reference to the receiving advice (**Reference to receiving advice**) is given as a document level reference, if an electronic receiving advice has been received/sent, **OR**  
That references to each receiving advice are given as invoice line references when more than one delivery is invoiced in an invoice instance, if electronic receiving advices have been received/sent. (Applies to Order to cash business process).

### Supplier step: File invoice

The supplier must file the invoice in a way that meets the requirements of the applicable national tax act (regarding for example Value Added Tax and Goods and Services Tax) and national accounting (bookkeeping) act. Filing and retrieval of invoices must follow national regulations.

### Supplier step: Allocate accounting information

The supplier allocates the request for payment as a claim in the accounting system. This is input to the accounts receivable to ensure that invoices and payments due are monitored.

### Supplier step: Send invoice

The invoice is sent by the supplier

### Buyer step: Receive invoice

The invoice is received by the buyer.

Read about receipt of business documents in Appendix Receipt of business document and exception handling.

### Buyer step: Register invoice

When the invoice has been received by the buyer's system it must be processed. This may include registering the receipt of the Invoice and booking the invoice into the buyers accounting system.

### Buyer step: Validate contents of invoice

Once the invoice has been received by the buyer's system the contents of the invoice should be validated. The validation points are the same as for the supplier, see *Supplier step: Validate contents of invoice* above.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

### Buyer step: Add other accounting information

Information is added to the invoice for auditing purposes, if needed. This can include e.g., a delivery note, if the invoice is not detailed. This means that the delivery note must accompany the invoice for this to be acceptable as an audit record.

The additional information can be a paper document, a computer file or a scanned image of, for example, a delivery note. Additional information can also be provided by referring to a document filed in another place.

There are specific circumstances when an invoice must be presented in full, for example when a tax authority performs a tax audit. For that reason plain text for coded information must be added to the invoice. For example, the names and addresses for each GLN in the invoice must be added in plain text. In the same way the names of the invoiced trade items (GTINs) must be added in plain text.

**Buyer step: Sign off invoice**

The next step is to sign off the invoice. This is done regardless of the validation results, that is, regardless of whether the invoice validated correctly or not. Signing off can be done manually or automatically.

**Buyer step: Finalise accounting**

When the invoice has been signed off, the accounting is finalised.

If the invoice validated correctly, the buyer may proceed with the payment process, see section [3.11 Pay invoice](#).

If the validation resulted in errors, the invoice is marked as awaiting crediting, and the buyer waits for a credit note from the supplier. See section [3.12 Issue credit note](#) for the crediting process.

**Buyer step: File invoice**

The invoice must be filed and archived in a way that meets the requirements of the applicable national tax act (regarding for example Value Added Tax and Goods and Services Tax) and national accounting (bookkeeping) act. Filing and retrieval of invoices must follow national regulations.

### 3.10.3 Business document specification

This section gives an overview of the information contained in the business document specification (BDS) Invoice. The section also includes clarification on how the business document specification should be implemented.

#### 3.10.3.1 Invoice

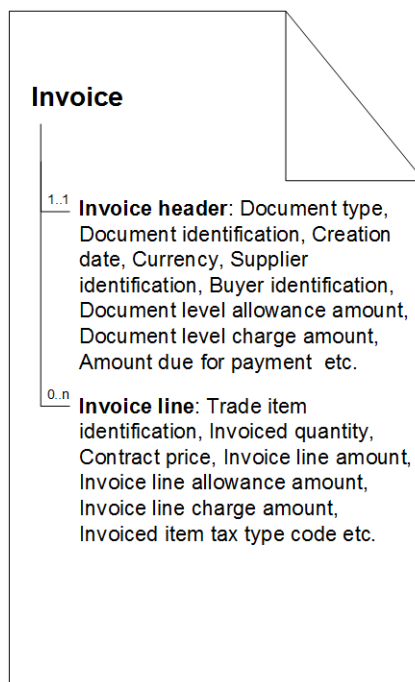
An invoice is sent by the supplier to the buyer when invoicing delivered trade items.

If an order has resulted in split deliveries, one invoice can be raised for each split delivery or one invoice can be raised to include all the split deliveries. One invoice can be used to invoice delivered trade items ordered by more than one order.

When preparing the invoice it is strongly recommended that all descriptive content such as names, addresses and item descriptions are aligned using master data.

When archiving the invoice, it is strongly recommended that all associated information is also archived, including such information which was exchanged separately (such as names, addresses, trade item descriptions). Clear text for specific code values should also be stored.

**Figure 3-49** Overview of the contents of business document Invoice.



### Invoice header

The invoice header contains information that identifies the business document and the parties involved (supplier, payee, supplier's tax representative, buyer, consignee and delivery place).

The header also contains:

- Document type: Indicates that this is an invoice as opposed to a credit note.
- Dates: The date the invoice document was created, the date the goods were delivered, tax point date, payment due date.
- References to source documents, such as for example order and despatch advice. References are made at header level when the invoice relates to one delivery only. If multiple deliveries are invoiced in an invoice instance the references are made at line level.
- Amounts for allowances and charges at document level.
- Monetary totals for the invoice, such as amount due for payment and tax breakdown including tax category tax amount.

### Invoice line

An invoice line occurs for each invoiced trade item. If no trade item is invoiced, the invoice will contain no invoice line. This might for example be the case when the invoice only concerns a transport charge for a delivery which already has been invoiced.

The invoice line contains information about the invoiced trade item, such as:

- The identity of the trade item.
- The quantity of the trade item.
- The price of the trade item.
- The total amount of the invoice line.
- Amounts for allowances and charges for the trade item.
- Information about the tax applicable for the trade item.

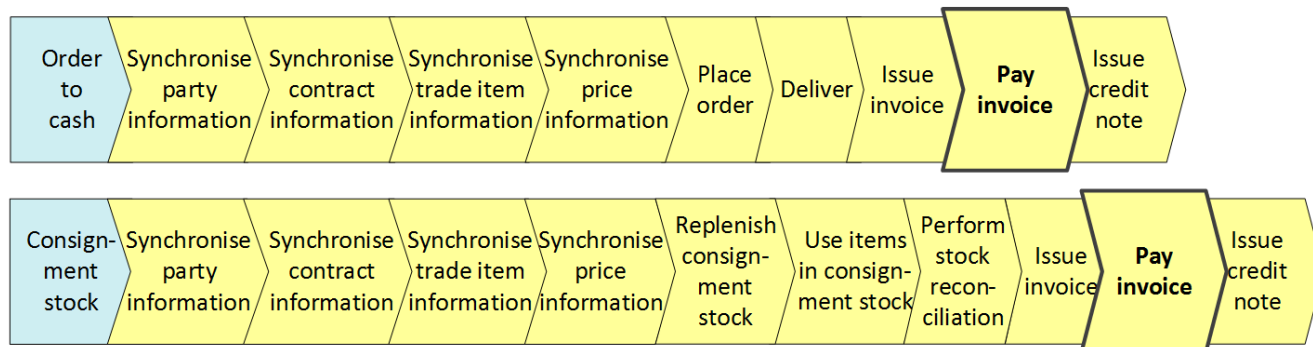
- References to source documents, such as for example order and despatch advice. References are given at line level when more than one delivery is invoiced in an invoice instance and when deliveries can be derived from more than one order. Otherwise, references should be given made at header level.

### Specifications for Invoice

The complete specifications can be found on:

- <http://www.gs1.org/sites/default/files/docs/ecom/invoice.zip>

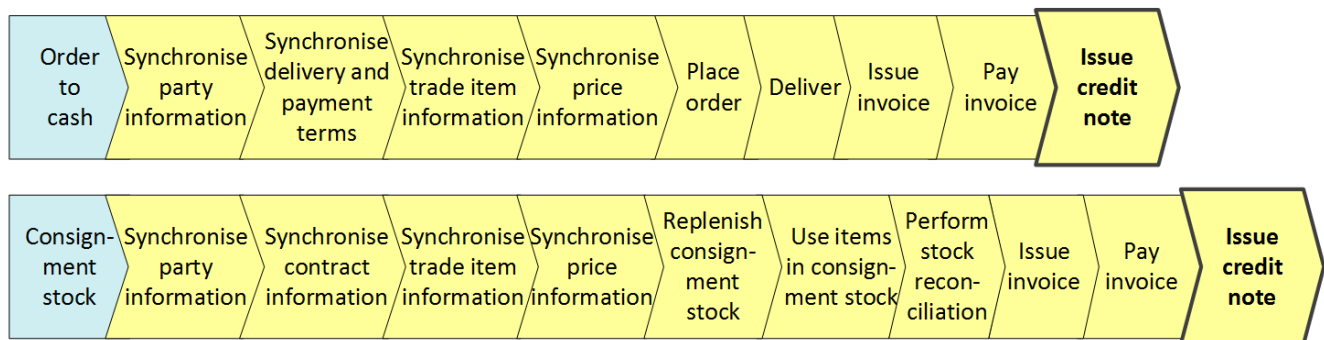
## 3.11 Pay invoice



The process 'Pay invoice' covers the process where the buyer transfers an amount to the supplier as specified in the invoice as payment for goods and services delivered.

Further specifications for Pay invoice will not be described in this document. Agreements on how invoices should be paid must be made between the business partners.

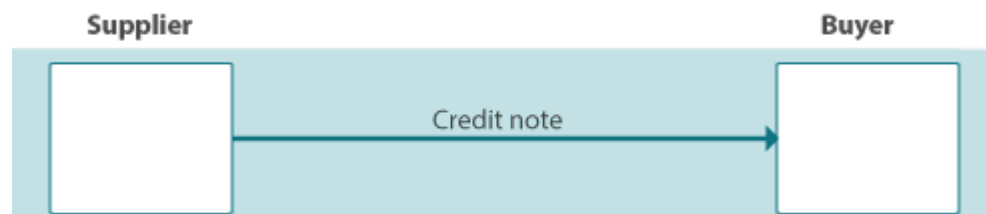
### 3.12 Issue credit note



The process of issuing a credit note is used to reimburse the buyer, for example, for returned or faulty products or services, for credit of deposits for returned packaging, or for payment of accumulated volume discounts.

#### 3.12.1 Scenario

Figure 3-50 Scenario - Issue credit note.



1. When the parties have agreed on reimbursement, for example for an erroneous invoice or for the return of a product or payment of accumulated volume discount, the supplier prepares a credit note and sends it to the buyer.
2. The buyer receives the credit note and processes it.

##### 3.12.1.1 Initial conditions

For the collaboration process to work in the best way, the following conditions must be fulfilled before the process starts:

1. A business agreement has been established between buyer and supplier.
2. Contractual conditions regarding trade items, price and party information has been synchronised between the buyer's and supplier's business systems.
3. The supplier has agreed to reimburse the buyer for incorrect invoicing or returned trade items, or to pay an accumulated volume discount.
4. Invoice(s) to be credited must already be entered into the buyer's and supplier's bookkeeping systems.

##### 3.12.1.2 Termination conditions

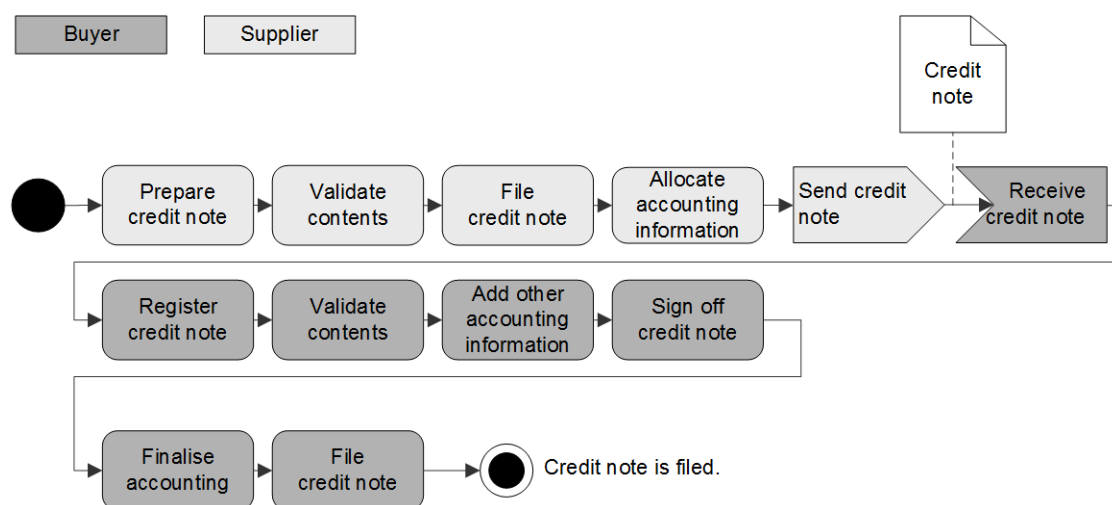
The process runs until the following condition is satisfied:

- The credit note is filed and the amount is ready to be credited to the buyer's account, or matched against another unpaid invoice from the same supplier.

#### 3.12.2 Detailed description of Issue credit note

This section provides a detailed description of collaboration process Issue credit note.

**Figure 3-51** Buyer's and supplier's steps when exchanging credit note.



The steps shown in [Figure 3-51](#) are described below.

### Supplier step: Prepare credit note

The supplier starts preparing a credit note when, for example, errors in an invoice has been reported, such as wrong invoiced price. The business document specification *Credit note* shows which information is included in the business document. See section [3.12.3.1 Credit note](#) for an overview.

### Supplier step: Validate contents

The following validations of the content of the credit note should be made before sending it:

#### Validation points at header level:

1. That the credit note number (**Document identification**) has not previously been used by the supplier. To ensure that duplicates are never raised, the supplier can use a Global Document ID as the credit note number.
2. That the creation date of the credit note (**Creation date time**) is specified and according to agreed terms.
3. That the currency applicable for the whole credit note (**Currency, code**) is specified.
4. That the due date for payment (**Payment due date**), if any, is consistent with the agreed payment terms.
5. That the credit note refers to the preceding invoice (**Reference to invoice**) when the credit note is used to reimburse the buyer for incorrect invoicing or returned trade items **OR** That the credit note refers to valid agreements, including agreed volume discounts (**Reference to contract**) when the credit note is used to reimburse accumulated volume discount.
6. That the credit note refers to the date of the preceding invoice (**Referenced invoice date**) if the referenced invoice identifier is not unique.
7. That the identification (GLN) of the supplier and buyer corresponds with those in the invoice. (**Supplier identification, GLN. Buyer identification, GLN**).
8. That the reason for crediting (**Reason for crediting, code** or **Reason for crediting, text**) is given if this is required according to contract or national tax legislation.
9. That the credited total amount in accounting currency (**Invoice total amount in accounting currency**) is given if the **Tax accounting currency, code** differs from the credit note currency (**Currency, code**).
10. WHEN AN ENTIRE INVOICE IS CREDITED: That the following total amounts at document level are present and equal to the total amounts in the invoice which is credited: **Amount due for payment, Invoice total amount without tax, Invoice total amount with tax, Invoice total tax amount.**

11. WHEN PART OF AN INVOICE IS CREDITED: That the credit note line amount (**Invoice line amount**) = Credited quantity (**Invoiced quantity**) x **Contract price** when crediting e.g., returned or faulty products or services.
12. WHEN PART OF AN INVOICE IS CREDITED: That the following total amounts at document level are present and correctly calculated:
  - a. That the sum of credit note line amount equals the summation of credit note line amounts. (**Sum of invoice line amount =  $\Sigma$  Invoice line amount**)
  - b. That the credit note total amount without tax equals the sum of credit note line amount. (**Invoice total amount without tax = Sum of invoice line amount**)
  - c. That the credit note total amount with tax equals the credit note total amount without tax plus credit note total tax amount. (**Invoice total amount with tax = Invoice total amount without tax + Invoice total tax amount**)
  - d. That the credit note total tax amount equals the summation of tax category tax amount. (**Invoice total tax amount =  $\Sigma$  Tax category tax amount**)
  - e. That the amount due for payment equals credited total amount without tax plus credited total tax amount. (**Amount due for payment = Invoice total amount without tax + Invoice total tax amount**)
13. WHEN TRADE ITEMS OF A SPECIFIC TAX TYPE, TAX RATE AND TAX CATEGORY ARE CREDITED: **Tax breakdown**, if used:  
That the **Tax category taxable amount** =  $\Sigma$  **Invoice line amount** for each different value of tax category rate (**Tax category rate**, e.g. 25) for a specific tax type (**Tax type code**, e.g. VAT) and a specific tax category (**Tax category code**, e.g. standard).  
**Validation points at line level:**  
A credit note line is only used when crediting returned trade items.
14. That the GTIN of the credited trade item (**Trade item identification, GTIN**) is the same as the GTIN of the invoiced trade item.
15. That the quantity of the credited trade item (**Invoiced quantity**) is the same as the quantity to be credited.
16. That the price for each credited trade item is according to contract. (**Contract price. Contract price base quantity. Contract price base quantity unit of measure**).

#### Supplier step: File credit note

The supplier must file the credit note in a way that meets the requirements of the applicable national tax act (regarding for example Value Added Tax and Goods and Services Tax) and national accounting (bookkeeping) act. Filing and retrieval of credit notes must follow national regulations.

#### Supplier step: Allocate accounting information

The supplier allocates the reimbursement as a debt in the accounting system. This is input to the accounts receivable to ensure that credit notes and debts due are monitored.

#### Supplier step: Send credit note

The credit note is sent to the buyer.

#### Buyer step: Receive credit note

The credit note is received by the buyer.

Read about receipt of business documents in Appendix Receipt of business document and exception handling.

#### Buyer step: Register credit note

When the credit note has been received by the buyer's system it must be processed. This may include registering the receipt of the credit note and booking the credit note into the buyers accounting system.



**Buyer step: Validate contents of credit note**

Once the credit note has been received by the buyer's system the contents of the credit note should be validated. The validation points are the same as for the supplier, see *Supplier step: Validate contents of credit note* above.

Read about exception handling when validating content in Appendix Receipt of business document and exception handling.

**Buyer step: Add other accounting information**

There are specific circumstances when a credit note must be presented in full, for example when a tax authority performs a tax audit. For that reason plain text for coded information must be added to the credit note. For example, the names and addresses for each GLN in the credit note must be added in plain text. In the same way the names of the credited trade items (GTINs) must be added in plain text.

**Buyer step: Sign off credit note**

The next step is to sign off the credit note. This is done regardless of the validation results, that is, regardless of whether the credit note validated correctly or not. Signing off can be done manually or automatically.

**Buyer step: Finalise accounting**

When the credit note has been signed off, the accounting is finalised.

**Buyer step: File credit note**

The credit note must be filed and archived in a way that meets the requirements of the applicable national tax act (regarding for example Value Added Tax and Goods and Services Tax) and national accounting (bookkeeping) act. Filing and retrieval of credit notes must follow national regulations.

Once the credit note has been filed it can be matched against another unpaid invoice from the same supplier. Alternatively the supplier can credit the buyer's account.

**3.12.3 Business document specification**

This section gives an overview of the information contained in the Credit note business document specification. The section also includes clarification on how the business document specification should be implemented and links to examples.

**3.12.3.1 Credit note**

A credit note is sent by the supplier to reimburse the buyer, for example, for returned or faulty products or services, for credit of deposits for returned packaging, or for payment of accumulated volume discounts.

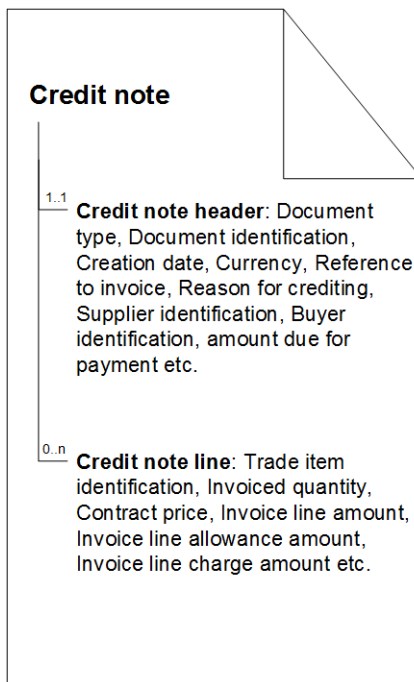
The following alternatives apply when crediting for returned or faulty products or services:

1. Crediting the entire invoice and issuing a new, correct invoice. There are two alternatives:
  - a. No credit note lines are included, only significant total amounts are to be specified, such as invoice total amount without tax, invoice total amount with tax, invoice total tax amount, amount due for payment and tax breakdown including tax category tax amount
  - b. All lines of the credited invoice are included as credit note lines, and all total amounts of the credited invoice are included as credit note total amounts.
2. Crediting only the invoice lines regarding the returned or faulty trade items.

When preparing the credit note it is strongly recommended that all descriptive content such as names, addresses and item descriptions are aligned using master data.

When archiving the credit note, it is strongly recommended that all associated information is also archived, including such information which was exchanged separately (such as names, addresses, trade item descriptions). Clear text for specific code values should also be stored.

**Figure 3-52** Overview of the contents of business document Credit note.



### Credit note header

The credit note header contains information that identifies the business document and the parties involved (supplier, buyer).

The header also contains:

- Document type: Indicates that this is a credit note as opposed to an invoice.
- Dates: The date the credit note document was created, payment due date.
- Reference to the invoice being credited.
- Reason for crediting. In some countries it is mandatory to state the reason for crediting a previous invoice.
- Monetary totals for the credit note, such as invoice total amount without tax, invoice total amount with tax, invoice total tax amount, amount due for payment and tax breakdown including tax category tax amount.

### Credit note line

A credit note line is used when part of an invoice is to be credited. If an entire invoice is credited, there are no lines in the credit note, just the header.

A credit note contains the following information:

- The identity of the credited trade item.
- The quantity of the credited trade item.
- The price of the credited trade item.
- The total amount of the credit note line.
- Allowance amounts stated in the referenced invoice to be refunded as a debit amount.
- Charge amounts for the trade item.

**Specifications for Credit note**

The business document specification (BDS) and mapping specifications (MS) for Credit note are the same as for Invoice. The complete specifications can be found on:

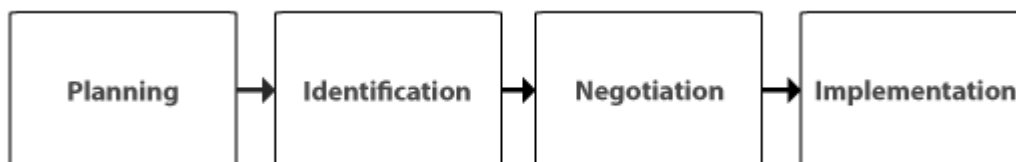
<http://www.gs1.org/sites/default/files/docs/ecom/invoice.zip>

## A Describing a business process

The model for describing a business process as used in this guideline is based on the Common Business Process Catalogue (CBPC), UN/CEFACT Modelling Methodology.

CBPC identifies and describes business processes at a general level. According to CBPC a business process consists of a number of phases:

**Figure A-1** The phases of a business process.



According to CBPC a business process starts with a **Planning phase** when a company or organisation is planning their operations. Thereafter, the process proceeds to the **Identification phase**, where the company or organisation identifies which parties are suitable to establish a business relationship with for business to be conducted.

The business process then proceeds to the **Negotiation phase**, when two parties who want to establish a business relationship sign a framework or contract. The contract provides, among other things, agreements for goods or services to be supplied, prices, delivery and payment terms. In the **Implementation phase** the parties carry out the obligations they assumed under the framework or contract.

The Implementation phase is divided into sub-phases:

**Figure A-2** Sub-phases of the "Implementation" phase.



In the phase **Identify basic information** buyer and seller exchange additional information about such things as parties, delivery points, price information and trade item information.

In the phase **Order/Call-off** the buyer makes a purchase order or a call-off in accordance with what has been agreed in the framework or contract. The supplier undertakes to deliver in accordance with the terms of the contract. The buyer agrees to reimburse the supplier for goods delivered or services performed.

In the **Deliver** phase delivery is made of what the parties agreed in the phase Order/Call-off.

In the **Pay** phase payment is made for goods delivered or services rendered according to what the parties agreed in the phase Order/Call-off.

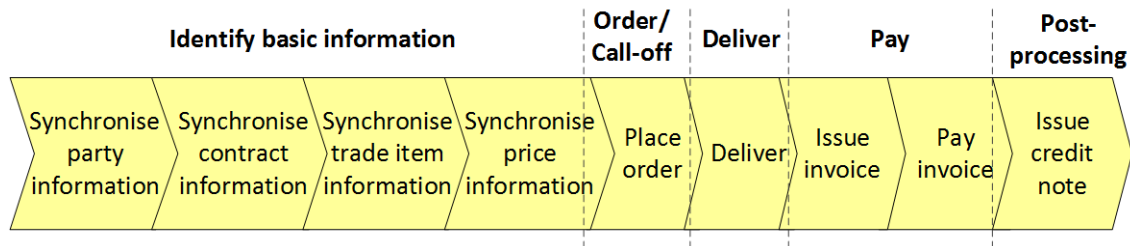
The **Post-processing** phase includes all activities and events occurring after the agreed goods or services have been, or should have been, delivered. This can include handling deposits and returns or various warranty obligations.

All the standardised business processes for e-commerce that GS1 has developed together with users are part of the phase Implementation and go through the sub-phases which this phase contains.

### A business process is composed of collaboration processes

According to the model, a business process consists of a number of collaboration processes, which run through the sub-phases of Implementation.

**Figure A-3** Illustration of a business process.

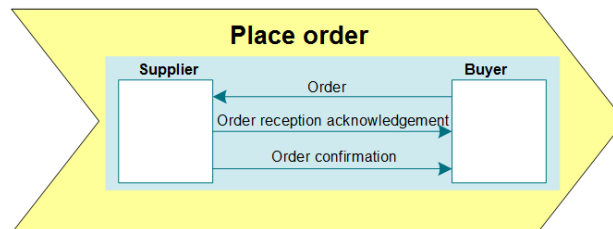


The figure shows an example of a business process that is a set of collaboration processes. The business process runs through the sub-phases of the Implementation phase.

### A collaboration process describes how the parties interact

A collaboration process describes how the parties interact and exchange information in a particular area, for example to order goods. The information exchanged is primarily in the form of electronic business documents.

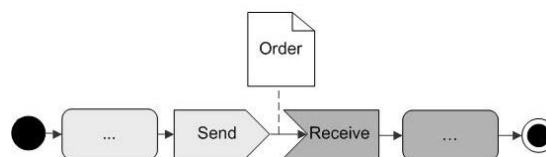
**Figure A-4** Illustration of a collaboration process.



### A document exchange describes how the parties exchange a business document.

A collaboration process includes one or more document exchanges. A document exchange describes step by step what the sender and recipient should do before a business document is sent and received. This may include how a business document should be approved by an authorised person before it is sent and what checks the recipient of the document should carry out. A document exchange puts the business document in context.

**Figure A-5** Illustration of a document exchange.



### A business document specification describes the content of a business document.

A business document specification is a description of what information should be included in the electronic business documents exchanged by the parties. By designing an electronic business document such as an order following the business document specification for an order, the parties can be sure that their systems interpret the sent and received information in the same way.

## **B Receipt of business document and exception handling**

### **B.1 Receipt and technical validation**

When a business document is received by the recipient's system, the receipt is logged with at least the time, sender and recipient which allows the recipient to check that the document meets the requirements for receipt to be accepted.

The interchange agreement defines which information is logged. It also states if and how acknowledgements and receipts will be used. This affects the timing of the formal receipt of the business document by the recipient.

The following technical validations are carried out to confirm that the document has been correctly received:

1. That the sender's identity (GLN) is correct.
2. That the recipient's identity (GLN) is correct.
3. That the message is syntactically correct.
4. That the electronic signature (if used) is valid.

If the document is correct according to the technical validation, the recipient continues to process the business document. This is described for each document exchange elsewhere in this document.

If the business document is not correct according to the technical validation, the recipient cannot accept the business document. The interchange agreement defines how this should be handled.

### **B.2 Handling exceptions**

If the contents of the business document differ from what the parties have agreed upon in the contract, the recipient should take appropriate action. The way this is to be done should be defined in the contract, e.g., if the recipient should contact the sender, in what manner the recipient should contact the sender and if the sender should correct the errors and send a new business document.

## C Overview of Business document specifications and Mapping specifications

Business document specification (BDS)	Mapping specification GS1 EANCOM	Mapping specification GS1 XML
Order	MS EANCOM ORDERS	MS XML Order
Order Confirmation	MS EANCOM ORDRSP	MS XML Order response
Order Receipt Acknowledgement	MS EANCOM ORDRSP	MS XML Order response
Despatch Advice	MS EANCOM DESADV	MS XML Despatch advice
Receiving Advice	MS EANCOM RECADV	MS XML Receiving advice
Consignment Stock Status Report	MS EANCOM INVRPT	MS XML Inventory report
Transfer of Ownership Report	MS EANCOM SLSRPT	MS XML Consumption report
Invoice	MS EANCOM INVOIC	MS XML Invoice