



# STAND

STANDARDISERINGSUTVALGET FOR  
NORSK DAGLIGVAREBRANSJE

---

## Measurement of service level

Please be aware that this document may contain hyperlinks to reference pages /document. These pages / documents will not automatically attach if you choose to print the main document.

# Table of Contents

Measurement of service level	3
Service Level – Purpose, types of target measures and assumptions	3
Definitions – Priority target measures	4
Definitions – Combined target measures	5

## Measurement of service level

Good service level in the entire value chain is today a prerequisite for rational and competitive product flow, which in turn assumes that the performance can be measured and followed up.

Measurement and evaluation of service levels are crucial to prioritize and implement measures aimed at continuous improvements.

The parties are free to agree whether to measure the degree of service.

If the parties agree to establish an agreement, STAND recommends that STAND's definitions be used.

Areas affected by, and subject to guidelines from STAND are:

- Intentions for measurement of service level
- Target measures and the conditions that apply to these
- Definitions of different types of target measures, with examples
  - Priority target measures
  - Combined target measures

## Service Level – Purpose, types of target measures and assumptions

### Intentions for measurement of service level

Measurement of service levels is a topic that most players are concerned with and are an important element in the relationships between supplier and customer.

The parties are free to agree whether to measure the degree of service.

If the parties agree to establish an agreement, STAND recommends that STAND's definitions be used.

A challenge in relation to the exchange and evaluation of service level data has been that the trading partners often use different definitions and conditions for measurement and follow-up.

The recommendation contains suggestions for target measures and common definitions for measuring service levels. The purpose is to establish a common platform as a basis for measurement, communication and mutual evaluation of performance.

Joint exchanges of measurement results, based on the proposed definitions, could contribute to improved service levels and contribute to increased understanding of the parties' views on customer and delivery services.

Target measures are based on DLFs (Dagligvaruleverantörers Förbund) and DULOGs (Dagligvaruhandelns Utvecklings- och Logistikgrupp) common definitions, established in Sweden in 1998.

With this as a base as well as experience from companies with international relations, the prioritized definitions build upon the need for common understanding, measurement and evaluation of cross-border service.

With continuous follow-up, development and trends can be monitored over time. This will probably be more interesting than single results. Greater trend deviations are when warning signals and improvement programs should be implemented to reduce the likelihood that a similar situation will arise in the future.

### Target measures

The recommendation describes 6 different target measures, of which STAND recommends that 3 of these are prioritized, as these can be quickly implemented in today's systems.

Other target measures are composed of different combinations of priority targets.

Selection of target measures is done by the parties themselves and described in bilateral agreements.

The industry has an increasing focus on improving the service level to consumers, ie reducing out-of-stock in the stores. This is currently being worked on, including developing agreed definitions of how this should be measured and followed up. The following two KPIs can be used:

#### 1. Lost sales:

When stock is zero at the end of the day, this will be set off against lost sales in the store.

*Example: You have sold 40 during the day, and at the end of the day, the stock is zero. If this item had a sales forecast of 100 that day, the shelf service level of this item would be 40%.*

*When you aggregate this to store level, we will get a figure of how many customers were actually affected (based on the forecast) by the empty shelf.*

#### 2. Empty shelf

Number of article lines / products with stock = 0

Empty Shelf = \_\_\_\_\_

Number of article lines / products in the assortment in total

Assortment is defined as what purchasing / category management has decided.

Deviations between what the individual store has in their space program, and the defined assortment for the store may have to be measured with a separate key figure; assortment loyalty.

For the reports, inventory = 0 means that inventory is 0 or less than zero in the store's systems.

Other priority target measures:

- Correct quantity
- Correct time
- Correct administration

Combined target measures:

- Delivery of Order – Availability
- Complete orders at the right time
- The perfect order

The target measures can be used by both the customer and the supplier for follow-up of each other's performance.

### Prerequisites for target measures and definitions

#### Measure

In the measurements, the unit of measurement is described as "sales unit".

It is recommended that Stock Keeping Unit (SKU) is used as a sales unit. Stock Keeping Unit (SKU) is established in most systems and is the base for transactions; ex. ordering, delivery, billing etc. to the store.

Consumer Units (CU) as a unit of measurement, however, should be the vision and goal of the future, as the Consumer Unit (CU) is the unit of measurement that is uniform and shared throughout the value chain.

#### Agreement on measurement of service level

Which target measures to use and what definitions should apply should be anchored in a bilateral agreement.

The agreement can regulate conditions such as:

- Accrual
- Lead times
- Assortment
- Time frame
- How the exchange of measurement results should take place
- Where and when the measurement should take place for the measurement points associated with the priority target measure "Correct time"
- Duration of measurements. In choosing definitions, the parties must agree on the degree of service to be calculated over time or in relation to a contracted number of orders

## Definitions – Priority target measures

The target measures are based on three important dimensions in the term «service level»:

- Quantity – availability
- Time – reliability
- Administration – security

The priority targets measures should be followed and evaluated continuously with focus on level, trends and development.

#### Target measures Correct quantity – availability

The target measure "Correct quantity" measures availability as precision in quantity delivered.

Definition:

Number of delivered sales Units	= Availability
Quantity of ordered sales Units	

The quantity ordered is the amount that the customer initially ordered.

Not delivered quantity represents deviations in delivery.

#### Target measure At the right time – reliability

The target measure "At the right time" measure reliability as precision in delivery time.

The target measure is used to measure compliance with time limits defined in the agreement between the parties.

The target measure can be used along several dimensions in the value chain.

Examples may be if orders are sent at the right time, if order confirmations are sent at the right time, if delivery is picked up at the right time, if Despatch Advice is sent at the right time, etc.

Definition (with example order):

Number of late or early delivery orders	= Reliability
Total quantity of orders	

Delayed or premature is determined by whether exchange / delivery is within the agreed time frame.

At Incoterms Ex Works delivery terms, the assessment of the supplier's reliability is on the supplier's ramp.

The delivery is received when the order / delivery etc., is acknowledged for.

Target measures Correct Administration – Security

The target measure "Proper Administration" measures security as compliance between what is ordered in the order and what has been delivered and has been invoiced, that is, the correct product without errors and with the correct documentation.

Definition:

Quantity of orders without credit / debit notes	= SAFETY
Total quantity of orders	

Correct administration means that Despatch Advice, shipping notes, invoices etc. are complete and error-free in relation to the delivery. Only credit and debit notes affecting physical delivery are included in the measurement. The target measure can also be used to measure the quality of orders from the customer.

Examples of calculation of service level for priority target measures can be found in the document

Examples of priority target measures

Service level is measured in %

Target measures Delivery Level Quantity – Availability

If 100 sales units have been ordered and 98 sales units are delivered at first delivery, the service level is 98%.

Target measure At the right time – Reliability

If there are 10 orders placed for delivery at a specific date, the deliveries should have arrived at the specific dates / time slots and 1 of the deliveries arrive before or after the agreed date / time slot, the service level is 90%.

Target measures Correct Administration – Security

Example 1:

Out of 10 orders, 1 invoice has a price error. An invoice for another order contains items reported to the vendor with errors on arrival. The delivery on the third order is missing Despatch Advice. These 3 errors generate 3 credit notes / deviations and service level is 70%.

Example 2:

Out of 10 orders, 1 of the orders on the invoice has a price error on a product and another item on the same invoice has an error / defect reported to the supplier. If the errors can be corrected on a single credit note, the service level is 90%.

**Definitions – Combined target measures**

The priority target measures can be combined in different ways, to create Combined target measures.

STAND has defined 3 examples:

Target measure Delivery Order – Availability

The target measure "Delivery Order" gives the proportion of the orders that are properly delivered.

Definition:

Quantity of complete orders delivered	= Level of Order Delivery
Total number of orders ordered	

A complete delivery order contains all ordered sales units, in the correct quantity

Availability will primarily be measured as the priority target measure "Proper Quantity – Availability", but to calculate the combined measurements below, it is a prerequisite that "Delivery Order – Availability" is calculated.

Complete orders at the right time – Availability & Reliability

The target measure describes both accessibility and reliability in the interaction.

The target measure is composed of the target measures:

- Delivery of Order – Availability
- At the right time – Reliability.

Definition:

Availability expressed per order	= Complete orders at the right time
– Quantity of late or early delivery orders	
Total quantity of orders	

Only one error per. order is counted

The measurement of "Complete Orders at the Right Time" shall be done at the place of arrival. At Incoterms Ex Works delivery terms, this is the supplier's ramp

The perfect order

This is the most demanding target measure and measures all types of deviations regarding complete orders.

The target measure is composed of three previously defined target measures:

- Delivery of Order – Availability
- At the right time – reliability
- Correct administration – Security

Definition:

Quantity of complete orders delivered	= The perfect order
– late or early delivery orders	
– Orders with missing or incorrect documents	
– Orders with credit / debit notes	
Total quantity of orders	

Only one error per. order is counted

If both the supplier and the customer's obligations are considered in the target measure, the target measure represents the performance that the parties create in common.

Examples of calculation of service level for combined target measures can be found in the document

Examples of combined target measures

Service level is measured in %

Target measures Delivery Order – Availability

Example 1:

If 10 orders are missing 1 sales unit in one order at the time of delivery, service level is 90%.

Example 2:

If there among 10 orders is missing 1 sales unit in one order and 50 in another order at delivery time, service level is 80%.

Complete orders at the right time – Availability & Reliability

Example 1:

If one of 10 orders ordered is missing 6 sales units in one order and another order is delayed, the Complete Order service level is 80%.

Example 2:

If there are 10 orders, 2 orders are out of time, and one of the orders that are not in time is also incomplete, the service level of complete order is 80%.

The perfect order

Example 1:

If there among 10 orders are missing one sales unit on one order. Another order is delivered too late. The third order has generated a credit note, the service level is 70%.

Example 2:

If there among 10 orders is missing 1 sales unit in one order and the same order is delivered prematurely. Another order of products has errors and has generated a credit note, the service level is 80%.