Supplier Manual Logistics

Global Logistics Standards and Processes of Continental Automotive
Purchased series parts
Version 2014.11
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Former Editions:

In 2008 Continental released the initial version of this Supplier Manual Logistics 1.0. In June 2010 this version was updated and became a Continental Standard. This Supplier Manual Logistics is a full update to the prior CN 855228-1 (from 06-2010) and the Supplier Manual Logistics Version 1.0 (from June 2008).
Presentation

The Automotive Group of Continental AG - hereinafter referred to as Continental - supplies systems and components for powertrains, chassis, instrumentation, infotainment solutions, vehicle electronics, brake systems, and networked automobile communication to the automotive as well as commercial vehicle industry.

Our daily challenge is to meet our customers’ increasingly diverse and individual requirements together with rising complexity in production processes and manufacturing networks. For Continental Automotive this means to continuously improve and provide the necessary flexibility in supply chain and production processes together with keeping costs down. Reduction of response times while optimization of inventory and in handling are further examples thereof.

Logistics processes between business partners become more important every day, as supply chains get more complex and extended, with parts shipped across the globe. Continental strives for 100% (hundred percent) delivery performance towards customers, because OEM mandate it. Continental’s performance towards its customers depends on the logistics performance of its business partners. A high level of logistics performance towards each of our customers is achieved only if logistics processes interact properly throughout all levels of the supply chain.

Thus, it is Continental’s strategy to establish and develop collaborative business partnerships with its Suppliers to achieve our customers’ quality, cost, and delivery objectives.

Regularly, a contractual partnership exists by and between Continental and Supplier in form of Logistics Agreements (e.g. General Supply Chain Agreement). Contracts are the generally binding logistics framework and establish the basic terms and conditions with respect to logistics processes. However, it is important to describe logistics processes in detail so that role, basic interactions, and responsibilities are clarified between business partners.

This manual should serve as a work of reference for Suppliers and help to clarify first questions concerning Continental’s logistics requirements. The purpose is to provide advice, clarity, and transparency through definition and standardization of logistics processes involving Continental and Supplier.

Therefore, this manual sets forth the binding logistics requirements that Supplier agrees to in Individual Logistics Agreements with Continental Automotive (e.g. GSA). It supplements the GSA (General Supply Chain Agreement) in its current version, describes logistics processes, and specifies expectations of Continental.

Supplier is obligated to review the Supplier Manual Logistics and the applicable Continental Standards, which are incorporated in this manual by reference. Supplier has to meet all applicable logistics requirements stated in this manual or in the incorporated CA TST. Non-compliance will result in low logistics performance and this will have an influence on future sourcing decisions.

The Supplier Manual Logistics applies to the Continental Automotive Group of Continental AG worldwide, to all legal entities within the Continental Automotive Divisions - Chassis & Safety, Interior, and Powertrain - and for all deliveries to worldwide destinations of Continental. Currently the Continental Automotive Group with its three divisions Chassis & Safety, Powertrain, and Interior is present at more than 77 locations and in more than 27 countries worldwide. In the following, the aforementioned Continental Automotive Group of Continental AG is referred to as Continental.

This manual will be updated on a regular basis; therefore, Suppliers of Continental are obliged to keep the version always updated.
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Chapter 1: Introduction

1.1 Structure

This Logistics Manual consists of different sections describing all logistics processes that apply generally worldwide. In order to respond to specific supply processes of particular Continental plants or regions, this manual can be supplemented by region- or plant specific annexes concerning EDI, Packaging, Customs/Foreign Trade, Export Control and Dispatch/Transportation.

These documents are available for download at the Continental Automotive Supplier Homepage or are made available by Continental via the SupplyOn Document Manager.

1.2 Scope

The Manual applies to all Suppliers of Continental supplying approved raw material and production material. This manual focuses on logistics processes during series production; out-of-scope are logistics processes during prototyping, pilot build or during initial samples built-up, subcontracting and logistics processes for product termination. If not regulated in Individual Quality and Purchasing Agreements these processes are handled on a case-by-case basis.

For purpose of this manual, Continental refers to the Continental Automotive Group of Continental AG. The Continental Automotive Group comprises all business units of the Chassis & Safety, Interior, and Powertrain division.

1.3 Scope for Suppliers

The Supplier Manual Logistics and its incorporated Continental Technical Standards (TST) contain a complete list of all possible logistics processes and standards with a global perspective during series production. This does not mean that all of the described logistics processes or requirements are applicable to the specific business partnership by and between Supplier and Continental.
Chapter 2: Information and Communication

This section describes in section ‘2.1 CONTACTS, AVAILABILITY AND OBLIGATION TO PROVIDE INFORMATION’ why logistics contacts and availability in emergencies are important for Continental. In section ‘2.2 EXCHANGE OF DATA AND BUSINESS COMMUNICATION’ explains the process of setting-up an EDI connection and the types of EDI messages. In addition, this chapter describes in section ‘2.4 SUPPLYON’.

2.1 Contacts, Availability, and Obligation to provide Information

2.1.1 Supplier Contacts

The basis for successful cooperation between business partners is communication. Information sharing, which is automated to the greatest extent possible, is as important as having the designated key contacts available when needed.

For this reason, Supplier has to define and communicate a key contact with the complete contact information (24 hours phone number, email, etc) for logistical issues as well as a suitable backup to each Continental production location. Additionally, an escalation path shall be defined and provided to Continental (e.g. Account Manager), or a coordinator of logistics topics on a worldwide level. This coordinator or his representative has to be in a position to make decisions in the event of emergencies. This allows us to address quickly any problems to the responsible contact whenever necessary.

Supplier ensures that these contact persons, or their substitutes, have good language skills in the national language of the respective Continental production plant or good knowledge of English. Both Parties communicate in English, unless both Parties share a common language. However, written communication has to be in English to be legally valid.

The Supplier must communicate any changes in contact persons to Continental.

2.1.2 Continental Logistics Contacts

Within Continental, there are different logistics contacts for various topics. In day-to-day operations, the contact for Supplier is a respective logistics contact at the ordering Continental location. This includes e.g. topics related to material management, EDI implementation, material shortages only affecting one Continental plant etc. However, Continental BU Logistics or Continental SCMA handle strategic topics on a global level (e.g. allocation affecting more than one plant, participation in SCR meeting etc.).

2.1.3 Availability

Supplier has to ensure that a contact is available during Continental's production times. Continental Automotive is present worldwide, and its plants operate on a multiple shift basis. Suppliers delivering e.g. from Asia to North America, with no local representative, must ensure that a contact is available also for our plants in Mexico or Brazil, especially in the event of emergencies.

For escalation in emergencies, the coordinator or his management shall be available to Continental Management and allocation responsible 24h/365d (twenty-four hours/three hundred sixty five days). This means also outside of normal business hours, on weekends and on public holidays if required.

In emergencies, or urgent request, Continental expects its Suppliers to answer immediately. If this is not possible, the request has to be processed within 24h (twenty-four hours) on the latest to Continental. In case it is not possible for Suppliers to provide a definitive feedback within this time, Supplier shall keep Continental informed of the current situation.

2.1.4 Obligations to provide Information

Continental expects its Suppliers to have implemented the necessary processes to ensure that potential problems having influence on the delivery performance or endangering supply of Contract Products to Continental are communicated as soon as they are identified.

Supplier shall inform Continental immediately and without request in case of delivery problems (e.g. anticipated shortfalls in deliveries) or any situation or changes that could negatively influence Continental's business. Changes must be notified to Continental immediately when they are known. This might include, but not limited to, information in case of delivery bottlenecks, material shortages, change of production capacity due to e.g. tool breakdown, change of carrier specification, or any problem in data transfer etc.

In addition, the Parties inform each other in exceptional cases (e.g. product line transfers) in which foreseen changes are not yet visible in the automatically generated Delivery Schedules and consult each other about necessary adjustments.
2.2 Exchange of Data and Business Communication

Suppliers have to use EDI in order to exchange communication with Continental. Harmonization of its IT-Systems is Continental's long-term strategy. This includes the migration of as many Suppliers as possible to a data exchange via EDI together with covering the full set of standard business communication with Supplier by EDI (Delivery Schedule, Shipping Notification, Self-Billing Invoice etc.). For this reason, this section describes the general requirements on EDI and the process of setting up an EDI communication with Continental.

2.2.1 EDI with Continental Automotive

In order to ensure fast, process-capable, and efficient information processing the Parties agree on electronic data interchange- hereinafter referred to as EDI.

EDI replicates paper-based business communication (e.g. Delivery Schedule, Advanced Shipping Notification, or Invoices) to a strictly formatted message that is exchanged electronically between the IT-Systems of Continental and Supplier. The exchanged data and information is formatted according to predefined standards.

The implementation of EDI does benefit both Supplier and Continental: because it reduces manual handling of data, transfers information faster, enhances data accuracy, and automates routine transactions.

However, it is not possible to process EDI messages directly between IT-Systems. Continental's ERP-System sends EDI messages in SAP IDoc format to an EDI subsystem where these messages are converted to a universal EDI standard (e.g. UN/EDIFACT). The EDI subsystem administers all outgoing and incoming messages, provides a gateway to external partners, and enables communication with non SAP-Systems. Supplier's IT-System can be connected to the IT-Systems of Continental via protocols (e.g. TCP, or EDI special protocols like OFTP, OFTP2, AS2, and VAN) or via private networks (e.g. GXS). A specific syntax is necessary so that incoming or outgoing data is processed correctly.

IT-Systems and message standards are customized to Continental's locations requirements. This leads to a variety of different EDI standards and message formats that are currently used at Continental. However, Continental's long-term strategy is to harmonize existing EDI connections with Suppliers. Therefore, Continental developed company specific formats for each message type with its syntax (data element, segment and EDI envelope) based on one global EDI standard (EDIFACT or VDA). New EDI connections will be set-up according to this standard, and existing EDI connections are migrated towards one global EDI standard according to the messages type. In justified cases and if the Continental production location agrees, alternatively the following standards are possible: VDA (for mechanic Suppliers in Germany), ANSI X12 (for North American Suppliers), ANFAVEA (RND) (Brazilian Standard) or WEB EDI via SupplyOn. Upon discretion of Continental and in justified cases communication may be provided in writing via Mail or Fax. In this case, Strategic Suppliers to Continental have to accept a reduction of scoring in the yearly supplier evaluation - see further details for Supplier Evaluation in ‘CHAPTER 7: LOGISTICS EVALUATION PROCESSES’.

Continental uses EDI in different business processes for e.g. Delivery Schedules, Inventory Reports, Delivery and Transport Data, Invoices and Electronic Transport Order. In the event any other message type needs to be implemented, the individual message type must be reviewed individually between the Parties case-by-case.

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*Figure 1 - Possible EDI transmissions between Continental and Supplier*
2.2.2 Setting up a EDI connection with Supplier

The implementation of each EDI connection has to be coordinated with the responsible EDI department of each Continental location. Usually the ordering Continental location contacts the Supplier and initiates the EDI implementation. However, Suppliers can initiate the implementation as well by contacting Continental plant logistics by themselves.

Both Parties agree on a timeline for the migration of the standard business communication to EDI and clarify first technical settings (EDI parameters and EDI format). Continental prefers certain standards for specific messages. The supplier checks whether the implementation of EDI according to the specifications of Continental is feasible. If Supplier is not able to implement EDI, WEB EDI (via SupplyOn) is accepted as alternative process. For details on the implementation process, please refer to section ‘2.4.2 WEBEDI VIA SUPPLYON’.

In the course of the implementation, Supplier will receive further technical details on the EDI settings and location specific regulations. Technical details for the message types (SSC logic, data element, segment, and EDI envelope) will be provided during the set-up of the connection and are to be reviewed and tested with the respective Continental location, Continental EDI department, and Supplier case-by-case before the set-up. In case of any discrepancies in designation of the information used within this communication, both Parties shall review the discrepancies and cooperate to solve the issue.

In case testing is necessary, Continental uses test IT-Systems and not the productive IT-Systems in order to avoid impacts on manufacturing processes.

Supplier, from his perspective, should adjust also its IT-Systems for data processing in order to guarantee complete compatibility with the message format of Continental and to ensure that the messages are processed correctly in Suppliers IT-Systems. Accuracy is imperative in order to maintain the integrity of data exchanged. When failure-free transmission is ensured, the data will be transmitted only by EDI.

Continental assumes that Supplier has in place the necessary communication hardware or software to support EDI (e.g. Internet connection, hardware, software. All necessary modifications or amendments to Supplier’s hardware or software are solely the responsibility of the Supplier. And each Party bears the costs arising out of the establishment, maintenance, and use of its used software, hardware including any fees relating to the use.

2.2.3 Monitoring and EDI Processing

Once the connection is set and implemented, Supplier has to assure the consistency of the IT-System throughout all its processes. Both Parties monitor the information flow in their IT-Systems on a regular basis in order to ensure an accurate communication and complete data transfer. Note that Continental considers EDI to be received by Supplier when the data transmission (EDI or WEB EDI) has been sent successfully from Continental’s ERP-System.

Therefore, both Parties check if received message(s) are complete, correct, and plausible. If any deviations are noted, the respective Party must inform the responsible Continental or Supplier contact without undue delay.

Delivery Schedules and Inventory Reports are released regularly (daily/ weekly/ bi-weekly) on a rolling basis. A new Delivery Schedule or Inventory Report Data Report updates the previous one completely. This means the next release of the message(s) replaces completely the preceding ones. The last received message is decisive.

2.3 EDI Supported Business Communication and Message Types

According to the Preferred Sourcing Model and EDI format Supplier and Continental shall exchange certain messages. However, detailed content of the message (e.g. data structure, format), mode, or frequency of transmission may vary from one Continental location to another depending on the agreed (Preferred) Sourcing Model, the Contract Product and systems settings at each ordering Continental location. Therefore, this manual covers what kind of information is Continental capable to communicate in messages rather than describe details on the EDI format and used structure.

Supplier and Continental exchange currently the following message types:

2.3.1 Delivery Schedule

In general, a Delivery Schedule is a communication that is sent from Continental who is planning to use or consume products of a Supplier who has to plan for the supply of the Contract Products. The message gives the requirements regarding details for short terms deliveries and/or medium to longterm scheduling. For details and content on Delivery Schedule please refer to ‘CHAPTER 4: ORDER MANAGEMENT AND PLANNING’. This Delivery Schedule message is sent by EDI and the current Continental company standard format is a GLOBAL DELFOR based on EDIFACT standard (e.g. EDIFACT D.04A). This message might also be referred to as DELINS (Scheduling Agreement Lines) or DELFOR01 (Forecast Delivery Schedule).
2.3.2 Inventory Report

An Inventory Report provides information related to consignment stock levels and stock movements. Continental provides this kind of information for consignment processes only. Supplier requires this information in order to be well informed about stock levels in the consignment warehouse and movements in the consignment inventory in order to plan resupply. With an Inventory Report Continental informs Supplier about the quantity withdrawn from consignment stock and for which the invoicing process is started (Self-Billing).

The current Continental company standard format is based on EDIFACT INVRPT 97A and EDIFACT INVRPT 99B.

The INVRPT includes a unique consumption reference number for each single withdrawal out of consignment and other special qualifiers to provide information about consignment stock levels, goods receipt and goods issue message indicating the transfer of ownership to Continental or any corrections thereof.

If Supplier agrees, Continental can include in separate Inventory Report messages stock levels of free, quality and quality blocked levels of consignment stock, Continental stock and a total thereof - provided Supplier’s IT-System can technically process this information.

2.3.3 Self-Billing Invoices

The purpose of this message is to automate the invoicing process. Currently the preferred Continental standard format is EDIFACT INVOIC 96A or INVOIC 97A.

Note that Self-billing invoices are subject to applicable law and shall be handled in accordance with applicable accounting regulations in the countries of the business partners.

2.3.4 ASN - Advanced Shipping Notification -, ‘Global ASN’ and Delivery and Transport Data

An ASN (Advanced Shipping Notification) is a notification of pending deliveries, similar to a delivery note or packing slip. Supplier sends the ASN via EDI or other means at the time a delivery is shipped. At Continental the ASN is known as a ‘Global ASN’ and is based on EDIFACT standard - version DESADV 07A. However, alternatively VDA and ANSI standards or ASN input via SupplyOn are accepted as well.

The goal of the ASN is to provide Continental with information about the delivery well in advance of the actual receipt date. It helps to optimize production planning as well as goods receipt processes.

The Continental Global ASN message electronically mirrors the delivery note and enables Supplier (the sender of an ASN) to describe in detail the contents of a shipment. This includes by way of example the contents of a shipment, order information, product description, physical characteristics of the goods, type of packaging.

The ‘Global ASN’ supports the following processes:

- **Transparency and data visibility in the supply chain**: Upon receipt of the ASN, the information is processed within Continental’s ERP-System and with this Continental is informed well in advance of a delivery and of any difference (date and quantity) between what was scheduled, and what has actually been shipped.

- **Goods receipt process**: various Continental locations use the ‘Global ASN’ for a simplified goods receipt process. Continental's ERP-Systems process all ASN data sent by Supplier and create ‘inbound deliveries’. When the shipment arrives, the goods receipt posting can be processed quickly as all necessary information is available in Continental's ERP-Systems: the delivery note is scanned, or manually entered into the ERP System, and booked against the ‘inbound delivery’.

- **TOMS (Transport Order Management System)**: the goal of TOMS is to support the optimization of truckloads. Specific additional requirements (e.g. packaging data) for the ASN message are agreed during the implementation. Note that both, EDI ASNs as well as SupplyOn ASNs are possible for TOMS. However, the SupplyOn ASN profile 4.0 is TOMS standard and precondition. For TOMS the ASN is required.

- **Supply Chain Monitor (SC Monitor)**: the SC Monitor is a web-based monitoring system of the current supply situation. An ASN is required in addition to a DELFORP message to provide transparency of the current supply situation. (For further information on the DELFORP message please refer to section ‘2.3.5 DELIVERY FORECAST PLANNED DELIVERY (DELFORP)’). Within the SC Monitor, all deliveries for which Continental receives an ASN are displayed as in-transit
quantities, and are taken into account for the determination of the material coverage. Without the in-transit quantities, it is not feasible to predict how the supply situation will develop in the upcoming weeks and this will lead to unnecessary alerts.

In case Continental requires the Supplier to take part in the TOMS and/or SC Monitor project, an ASN messages becomes mandatory and Supplier needs to send an ASN. The same applies if a Continental location requires an ASN transmission for the receiving process.

Supplier generate the ASN at the time the shipment departs from Supplier's premises and transfers the data to Continental's IT-System as a Global ASN message (1) either via classic EDI (EDIFACT, VDA, ANSI, ANFAVEA), (2) via CSV upload in SupplyOn, or (3) via manual input in SupplyOn. In case Supplier sends the ASN via SupplyOn, Supplier has to take into account that the SupplyOn ASN profile is prescribed by Continental locations.

The ASN data are automatically imported into Continental’s ERP systems where data is processed according to the requirements of each Continental location. The Supplier has to ensure the usage of single line items when posting the ASN, as multiple line items cannot be processed in most of the Continental plants. Single line item means that one ASN/delivery note number is created for each single part number and not for multiple part numbers. An additional requirement is that the ASN/delivery note number has to be unique. For TOMS, especially for all deliveries Continental pays for, pre-ASN (day before delivery) is required (electronic pickup advice).

Suppliers who need to test the EDI exchange of ASNs with Continental have to use Continental's test ERP-Systems and not the productive ERP-Systems in order to avoid an impact on our production planning. In case ASN data interchange is newly implemented testing is necessary and it is common practice that Supplier sends a test message for each Continental location first.

For further details regarding the mandatory contents of a ‘Global ASN’ please refer to our ‘DESADV Guideline 07A’. This document is available for download on the worldwide web by entering ‘ASN Guideline Continental’ and is published on the Continental website:


2.3.5 Delivery Forecast Planned Delivery (DELFORP)

The purpose of a DELFORP message is to inform Continental about planned deliveries well in advance. Planned deliveries is designated as ‘planned receipts’ in the following. This message type is required for the Supply Chain Monitor (SC Monitor). The SC Monitor is a web-based monitoring system of the current supply situation.

There are three options to provide Continental this information:

- Via classic EDI message (DELFORP), or
- Via CSV format: alternatively, suppliers can input the required data in a ‘*.csv’-file - with e.g. Excel - and upload the data to the SC Monitor via the menu ‘Supply Chain Monitor - Upload Planned receipts’. The ‘*.csv’ upload format is available via SupplyOn Customer Support.

- Via the SC Monitor Application: suppliers create manually planned receipts (deliveries) in the ‘inventory projection’ screen of the SC Monitor using the menu ‘inventory projection’. The system offers both to simulate (with manually entered data) and to generate (automatically) the planned receipts for a specific article (see screenshot, figure 4).
2.4 SupplyOn

SupplyOn is a web-based platform for cross-company communications for companies within the automotive and manufacturing industry. Strategic Suppliers for Continental confirm in Individual Agreements (GOA, Pricing Agreement etc.) to be registered to SupplyOn and to use certain services. Logistics requires its Suppliers to use the SupplyOn Performance Monitor and if applicable WEB EDI, SC Monitor, TOMS, and Document Manager.

2.4.1 Access

All services provided in SupplyOn are available for registered Suppliers only. Continental will contact Strategic Suppliers to Continental not yet registered to SupplyOn. Both Parties agree on the registration. After this Supplier receives further instructions thru the respective Continental purchasing department to initiate the registration and SupplyOn will contact Supplier to conclude a contract.

Note that SupplyOn charges both Parties a monthly fee for the usage of each service. Details concerning the monthly fee for Suppliers are agreed by and between Supplier and SupplyOn.

Trainings for SupplyOn Services are not in the responsibility of Continental; Supplier should contact SupplyOn Customer Service for further information.

2.4.2 WEB EDI via SupplyOn

If the Supplier, for various reasons (i.e. in case the necessary technical infrastructure is not available), is not able to implement EDI, WEB EDI (via SupplyOn) is accepted as alternative process. Usually Suppliers who do not have an EDI interface use SupplyOn WEB EDI.

The difference between EDI and WEB EDI is simply exchanging EDI messages via an internet platform. With the WEB EDI service of SupplyOn, all regular message types can be exchanged, however messages profiles are prescribed and can vary between Continental locations. Supplier can view, print, or download these EDI messages transmitted to the SupplyOn platform by Continental via a web-based frontend application.

Supplier understands that registration at SupplyOn and a contractual agreement with SupplyOn for this WEB EDI service is a precondition for the usage, even though the supplier might already be registered for certain SupplyOn Services (e.g. SupplyOn Performance Monitor).

For the registration of the WEB EDI Service, Supplier needs to contact SupplyOn and both Parties conclude a contract in good faith. After this, the necessary adjustments of logistics processes and changes in system-settings by and between Continental and Supplier have to be initiated, implemented, and tested. Each single routing between Continental location and Supplier has to be done separately in Continental's IT-System and Supplier will be contacted by the individual Continental location.

Supplier receives further details for the registration process either by the ordering Continental location or via SupplyOn Customer Service. SupplyOn provides training for WEB EDI separately. This is not in the responsibility of Continental.
Chapter 3: Sourcing Models

Continental strives for lean logistics processes. This means reduced complexity, response times, and optimization of inventory. Preferably, Continental combines this with consignment or just-in-time processes. Continental designates these inbound strategies as 'Preferred Sourcing Model' or short 'PSM Model'.

The ‘Preferred Sourcing Model’ defines the logistics concept including the format, content, and type of EDI message, stocking location, ownership, delivery frequency and the responsibility for inventory management.

Supplier shall understand 'Preferred Sourcing Model' as means to synchronize and optimize supply and manufacturing processes in terms of transportation, material flow, warehousing, capacity, and production planning for the benefit of its business.

In general, all Suppliers are required to deliver the Contract Products according to one of the following Preferred Sourcing Models:

- Vendor Managed Inventory (VMI) Consignment,
- Customer Managed Inventory (CMI) Consignment, or
- Just in Time (JIT).

The Preferred Sourcing Model is chosen by each Continental location and is to be provided on a free-of-charge basis and without separate remuneration by the Supplier, irrespective of the purchasing volume and quantity of the individual Continental production location in total or by component. Unless agreed otherwise Supplier will not be charged for the usage of Continental's warehouses for Continental consignment purpose. This is specified in an Individual Logistics Agreement for consignment.

Each contract for a ‘PSM Model’ is characterized by a certain predefined set of logistics processes and principles (e.g. warehousing, risk transfer, inventory aging, resupply etc.). These basic logistics processes and principles can be supplemented with location specific logistics processes in order to respond to particular supply relationships between Continental locations and Supplier.

The Parties review the logistics processes of the Preferred Sourcing Model before the set-up for each Continental location and in case of consignment specify details in Individual Logistics Agreements.

As tax- and duty obligations differ in most countries, even within European Union (EU), Suppliers have to ensure compliance to customs, accounting and tax regulations of the countries where the ‘Preferred Sourcing Model’ shall be implemented before setting-up of the model.

Only in justified exceptional cases and upon acceptance of Continental, a specific ship-to-stock model is possible.

For reference and for better understanding enclosed section describes the main characteristics of Preferred Sourcing Models.

3.1 CMI - Customer Managed Inventory Consignment Warehouse

CMI is a consignment process in which Continental as the Customer to Supplier manages the material planning in terms of restocking and the Supplier resupplies the Contract Products as indicated in a Delivery Schedule to a location close to or at Continental premises.

![Figure 5 - Basic principle of CMI consignment warehouse](image-url)
As a part of the consignment process, Supplier understands and agrees that title to and ownership in the Contract Product together with risk of loss for the Contract Product shall pass to Continental only upon withdrawal of Contract Product from the consignment storage location. Continental withdraws the Contract Product as needed according to production demand. Nonetheless, Supplier shall remain obligated to deliver the Contract Product in accordance to Continental requirements.

In addition to Delivery Schedules, the Supplier will receive further information about consignment stock level and movements in the consignment inventory. Details on Delivery Schedule Processing or Order Management are described in ‘CHAPTER 4: ORDER MANAGEMENT AND PLANNING’.

The implementation of CMI has benefits for both Supplier and Continental. Supplier will receive via EDI messages of Delivery Schedules and Inventory Reports (including consignment stock level and movements). Note that quantities in the Delivery Schedules are in the case of CMI ‘net requirements’. Net requirements are lot-sized and offset with planning logics as a result of applying gross requirements against current stock level, scheduled receipts, and safety stock (netting of gross requirements).

Supplier can use this information and the consignment inventory to optimize its logistics processes and provide the necessary flexibility within the lead-time. With this Supplier has more flexibility in arranging shipments, this is in case of CMI an extended window for early or late delivery for Logistics Supplier Evaluation. This is described in detail in ‘CHAPTER 7: SUPPLIER EVALUATION’.

Details and further requirements for CMI consignment process are agreed between the Parties in the respective CMI contract and during the implementation of the CMI Inventory.

### 3.2 VMI - Vendor Managed Inventory Consignment Warehouse

The basic idea of VMI consignment process is to give Supplier the responsibility for inventory management. Thus, VMI is a consignment process in which the Supplier is free to make his own decision regarding the delivery date, frequency, and quantity as long as Supplier maintains the inventory level required by Continental. Continental defines a minimum and maximum stock level, transmits gross demands in form of a Delivery Schedule and the inventory levels. With this data, Supplier resupplies Continental. In addition, Supplier obtains a receipt for the restocked inventory (e.g. POD by the forwarder or at latest with the Inventory Report) when the Contract Product is stored at a designated place, which is normally close to or within a Continental production site.

As a part of the consignment process, Supplier understands and agrees that title to and ownership in the Contract Product together with risk of loss for the Contract Product shall pass to Continental only upon withdrawal of Contract Product from the consignment stock. Continental can withdraw the stock without prior notification. The Supplier receives a notice of the withdrawn quantity - usually with the Inventory or Movement Report - and in case of SBI Supplier is informed about payments to be received according to withdrawn quantities and payment terms.

Continental will provide the Supplier the following information concerning inventory and requirements:

- The Supplier will receive via EDI messages of Delivery Schedules and Inventory Information. Note that quantities in the Delivery Schedules are in the case of VMI gross requirements (production requirements). This means that the quantities cited do not consider any stock levels or have undergone any lot sizing and it is the Supplier who is authorized to manage the inventory and responsible to ensure resupply. In this process, gross requirements do not include any planning times or fences.
In addition to Delivery Schedules Supplier will receive EDI messages called Inventory Reports. The Inventory Reports inform the Supplier about inventory levels of the consignment stock (free, quality and blocked) as well as include information about movements in consignment inventory (receipts and pulls). According to this information Supplier commits to keep the level/range of inventory within the agreed limits at all times to ensure a stable supply. Supplier shall plan resupply according to the actual and the projected consumption and shall only ship the quantity of Contract Products into consignment that will maintain the consignment stock below the maximum level and must assure on-time shipment so that inventory will not fall below the minimum level.

The min/max-level of inventory is calculated based on projected requirements for a certain minimum and maximum period of time and may be designated as range of coverage (e.g. two weeks for minimum and four weeks for maximum material coverage). Supplier can calculate a reference level by multiplying the averaged daily requirements (based on the forecasted gross requirement in the Delivery Schedule for the next 90 days including delinquencies / backlog) and the agreed minimum and maximum range of coverage in calendar days.

Continental and Supplier will review technical details (e.g. exact data content of the messages and frequency of data) during the set up of the sourcing model and testing of connection. This is necessary in order to ensure correct processing of information and interpretation.

Before the implementation, the Parties agree on specifics in an individual logistics agreement concerning Vendor Managed Inventory consignment.

3.3 JIT (Just in Time)

JIT shall mean Just in Time. It is a demand driven sourcing model with a limited inventory coverage range and high frequency deliveries (at least three times per week) relying on pull signals (e.g. Kanban) between different points (e.g. warehouse or production line).

It means synchronization of delivery and production in order to optimize logistics costs and inventories. The concept of synchronized supply aims to reduce the stocks in the supply chain up to the quantity necessary for the supply of Continental production. A zero-error supply chain process is of the essence for JIT.

The Supplier receives in addition to a Delivery Schedule a call-off from the ordering Continental plant, if required or applicable.

Call-off shall mean schedule lines within a limited period of time as a result of pull process. The call-off replaces information in the Delivery Schedule / Forecast Information for the limited period of time. The call-off is decisive for delivery and takes precedence over the Delivery Schedule and the Supplier should use the Delivery Schedule to plan its production accordingly. The mode of communication of the call-off (e.g. EDI, WEB EDI, E-Kanban, mail) can vary and is agreed between the Parties during the set-up of the concept.

![Diagram of JIT process](image-url)
Chapter 4: Order Management and Planning

It is the Supplier’s responsibility to arrange own logistics processes in order to ensure supply and delivery of Contract Products.

The following section should help Supplier to arrange its planning processes accordingly, as it describes processes and communications (exchange of information) between Continental and Supplier concerning material planning and monitoring deliveries. This includes frequently used designations, techniques, and activities, which Continental expects from Supplier.

4.1 Material Management and Logistics Information Flow

Continental provides Supplier with a long-term demand forecast for continuously ordered Contract Products in volume production that cover at minimum the upcoming 12 (twelve) months. This might be a rolling Delivery Schedule or other forecast information. Additionally Supplier might receive a call-off or Inventory Reports according to the Preferred Sourcing Model. Only in exceptional cases, Supplier receives single orders (i.e. for one-time requirements, sample ordering, operating supplies, or for requirements in the aftermarket business). In general these communications are exchanged via EDI (see further information on EDI in ‘CHAPTER 2.2 EXCHANGE OF DATA AND BUSINESS COMMUNICATION’).

Supplier should use this information to plan its material procurement, production capacity, dispatch, and deliveries and thereby ensure its delivery capability.

4.2 Delivery Schedule Processing

Delivery Schedules are generated demand-driven, within Continental’s ERP-System, according to the Sourcing Model and sent to Supplier. EDI transmission for Delivery Schedule is preferred (e.g. EDIFACT format). Suppliers will receive a Delivery Schedule for any Contract Product by any ordering Continental location in regular intervals or whenever updated. For each Contract Product there is a separate EDI message. Each Continental location regularly updates the Delivery Schedule on specific weekdays. The ordering Continental location informs Supplier during set-up of the EDI connection about the specific weekday and other technical requirements.

The Delivery Schedule inform Supplier about current and forecasting estimates for Contract Products and contains multiple schedule lines for current demands and for forecasting estimates up to 18 months, together with the required Continental receipt date (date the Contract Product shall arrive at Continental) and quantities of Contract Products at the Continental delivery address (point of consumption). The schedule (also known as release) instructs the Supplier to deliver a specified quantity of Contract Products to a particular Continental location by a specified date and time (Continental will order based on minimum packing units). Supplier shall use this information to plan deliveries to Continental locations according to the dates and quantities indicated in the Delivery Schedule.

Dates cited in the Delivery Schedule are to be understood by Supplier as arrival dates at the respective Continental destination. Arrival dates can be cited for a specific day (usually for the first two weeks), calendar week (usually for the first twelve weeks), or months (from 12th weeks onwards). Other times than these delivery dates are permitted only if coordinated with Continental.

Delivery Schedules are valid until replaced by the next release of the Delivery Schedule. The next release of the Delivery Schedule for a Contract Product replaces the preceding one completely. The last received Delivery Schedule is decisive for delivery.

The Supplier has to make sure that the data provided by Continental in the EDI message is processed correctly within Supplier’s IT-System and is obligated to inform Continental in case the message is not received in time or within the defined cycles. The same applies for any release that appear implausible to Supplier.

Any supplementary agreements and changes made by word-of-mouth (e.g. by telephone) must be confirmed by both Parties in writing to be legally binding.

4.3 Delivery Schedule Types

The following provisions explain the general format of a Delivery Schedule message depending on the transmission mode and the used designation. Further information on the data contained in a Delivery Schedule will be provided in form of a guideline (e.g. specificaiton for ‘Global ASN’ during the set-up of the connection).

Supplier has to ensure that its IT-System can process the data in order to guarantee complete compatibility with the message format and with Continental’s commercial interpretation of designations.
4.3.1 Delivery Schedules – Differences in Sourcing Models

In general, there is no difference in the EDI message type and within the format (e.g. EDIFACT or VDA) between the different Sourcing Models.

However, Supplier understands that quantities cited in Delivery Schedule for VMI are ‘gross requirements’ whereas to ‘net requirements’ in case of CMI consignment process, JIT or ship-to-stock.

**Net requirements** for a Contract Product are derived as a result of applying gross requirements against current stock level, scheduled receipts, and safety stock (netting of gross requirements). Net requirements are lot-sized and offset with planning logics.

**Gross requirements** are the total demand before netting of stock, scheduled receipts and have undergone no lot-sizing or other inventory planning logics.

Enclosed table summarizes the main differences:

<table>
<thead>
<tr>
<th>Sourcing Model</th>
<th>Communicated Message Type</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ship-to-Stock</td>
<td>Delivery Schedule</td>
<td>The Delivery Schedule received by Supplier for ship-to-stock parts is binding on Supplier and Supplier has to adhere to the dates (+/-1day) and quantities, rather than being merely interpreted as forecast. For this Continental sets appropriate parameters and planning logics in its ERP System to plan resupply. Quantities cited in Delivery Schedule and their due dates are based on ‘net requirements’.</td>
</tr>
<tr>
<td>JIT</td>
<td>Delivery Schedule Call-off</td>
<td>Supplier receives a Delivery Schedule, which Supplier should use merely for planning purpose. Additionally Supplier receives a call-off, which replaces the Delivery Schedule for a limited period of time as agreed mutually and in good faith with the ordering Continental location. The call-off is decisive for delivery and takes precedence. For further details on this ‘Preferred Sourcing Model’ please refer to section ‘3.3 JUST IN TIME’ of this manual.</td>
</tr>
<tr>
<td>CMI</td>
<td>Delivery Schedule Inventory Report</td>
<td>CMI is a consignment process in which Continental as the Customer manages the material planning in terms of restocking and the Supplier has to supply Continental as indicated in the Delivery Schedule. However, as Supplier receives additional information on consignment stock levels and movement reports Supplier has more flexibility in arranging shipments. E.g., Supplier can deliver ten days early as the Contract Products are stored in the consignment warehouse and will get a 100% evaluation for its delivery capability. Quantities cited in Delivery Schedule and their due dates are based on ‘net requirements’. For further details on this ‘Preferred Sourcing Model’ please refer to section ‘3.1 CMI – CUSTOMER MANAGED WAREHOUSE CONSIGNMENT PROCESS’.</td>
</tr>
<tr>
<td>VMI</td>
<td>Delivery Schedule Inventory Report</td>
<td>With VMI, Supplier shall interpret the Delivery Schedule as merely forecast information and non-binding on Continental. Supplier assumes complete responsibility for resupply for defined Contract Products and receives the Delivery Schedule along with daily or weekly Inventory Reports containing information about the stock level and withdrawals. Based on this information, Supplier has to ensure resupply in accordance with the agreed upper and lower range of coverage in calendar days (these limits are not transmitted in an EDI message). Supplier understands, that current and forecasted demands in Delivery Schedules are ‘production demand’, which are also referred to as ‘gross requirements’. For further details on this ‘Preferred Sourcing Model’, please refer to ‘3.1 VMI – VENDOR MANAGED WAREHOUSE CONSIGNMENT PROCESS’.</td>
</tr>
</tbody>
</table>
4.3.2 Terms associated with Delivery Schedules and Material Planning

The description below together with the example of Delivery Schedule transmission is intended to ensure correct commercial interpretation of the designations used in Delivery Schedules and Material Planning – irrespective of the mode of transmission. In the event of any discrepancies in designation, Supplier understands that he is obliged to review this with the respective Continental location, provided however Continental’s interpretation shall be final and binding on Supplier.

1. **Purchasing Order Number of Delivery Schedule or Scheduling Agreement Number**: This number must be noted on the delivery note, referred to in an ASN, and the Supplier’s other shipping documents.

2. **Consecutive number of Delivery Schedule and transmission date**: shows how many delivery schedules for the same Contract Product have been issued to Supplier so far.

3. **Number of previous Delivery Schedule together with the date of transmission**: indicates the release of Delivery Schedule, which is now replaced (superseded).

4. **Continental contact information**: this includes information of the material planner of the ordering Continental location. In the event of any deviations in this Delivery Schedule, this is the point of contact.

5. **Delivery address**.

6. **Part Number (Contract Product) and description**: The ten-digit number assigned by Continental of the respective Continental ordering location and the assigned description of the part.

7. **Latest delivery received including date, quantity, and delivery note number**: Deliveries (quantities together with arrival date) not yet received and in transit are not included in this figure.

8. **End date for Production Release**: Continental has to purchase (or reimburse) Supplier for finished quantities scheduled before this date in the event of cancellation (see section ‘5.2 PRODUCTION AND MATERIAL RELEASES’).

9. **End date for Material Release**: specific raw material procured by Supplier scheduled before this date are subject to a Material Release. For further information, please refer to ‘5.2 PRODUCTION AND MATERIAL RELEASES’.

10. **Cumulated qty delivered** – may be also designated cumulated receipts; this is the quantity received at Continental since the beginning of calendar year or other set to zero date.

11. **Arrival date**: the date the quantities are required at the premises of the ordering Continental location. The date can be predetermined days (usually the demand within the first two weeks), calendar weeks (usually the requirements up to 12 weeks), or months (usually from ~third month onward for merely planning purpose).

12. **Quantity scheduled /quantity undelivered** – current and forecasted demands.

13. **Cumulated scheduled quantity** starting point of accumulation: quantity of field 10 (cumulated receipts) plus the respective quantities of the individual line items (field 12).
4.3.2 Examples of Delivery Schedule

The following examples and their possible method of transmission give an overview of the content of a Delivery Schedule (layout and terms used). There may be differences in plant-specific Delivery Schedules regarding layout, used fields or in designation. Supplier should use this for reference only. The specific content of the message will be explained during the set-up of the communication by and between Supplier and Continental and/or the set-up of the respective ‘Preferred Sourcing Model’ based to the used communication interface.

- Delivery Schedule (Non-EDI Print)

The Supplier may receive Delivery Schedules in writing (PDF, xls, Fax) in case EDI is not possible at all or as a fallback solution in the event of any breakdown. The screenshot below is an example of how a Delivery Schedule may be set up when received as a hard copy (e.g. PDF). Note that the layout and the used terms may vary in designation. This is due to location or regional specific logistics processes and system settings.

![Delivery Schedule Example](image-url)
- Delivery Schedule (WEB EDI)

Enclosed figure is a screenshot taken from SupplyOn WEB EDI. Suppliers using SupplyOn WEB EDI can view Delivery Schedules and also download this information into their systems. Designations are similar to the ones described above however layout may differ. Please refer for an explanation in designations to the Delivery Schedule (Non-EDI Print) and section 4.3.2 TERMS ASSOCIATED WITH DELIVERY SCHEDULE.

- Delivery Schedule (Example EDI Protocol)

The information is transmitted in segments and designated with special qualifiers depending on the chosen EDI format and standardized structure (e.g. Global Delfor).
4.4 Planning and Monitoring Deliveries by Supplier (Responsibilities)

Continental requires its Suppliers to deliver Contract Products in such quantities and times as to achieve 100% on time delivery pursuant to the dates and to the place specified in the decisive Delivery Schedule (see chapter ‘4.4.1 POINT AND TIME OF DELIVERY’) if not otherwise agreed in Individual Logistics Agreements for Preferred Sourcing Models for Vendor Managed Consignment Inventory. Supplier has to ensure continuous monitoring of current and forecasted demands in Delivery Schedules as well as the actual shipped figures.

Usually, Continental does not require Suppliers to confirm Delivery Schedules: the quantities and dates listed in Delivery Schedules are considered confirmed by Supplier unless a written objection is made within a certain period of time. However if Supplier seeks an exception to this, due to divers reasons, the process and responsibilities apply as described in 4.4.2 CONFIRMATION BY SUPPLIER.

A Delivery Schedules message is provided on a rolling basis and the next Delivery Schedule updates the previous one completely with respect to current and future demands based on single and cumulative quantities. Therefore, Delivery Schedules are valid until replaced by the next release. Suppliers should use the figure of cumulative quantities (see 4.4.5 CUMULATIVE QUANTITY) to plan and monitor deliveries to Continental.

4.4.1 Point and Time of Delivery

Supplier shall deliver Contract Products to the delivery address - point of internal consumption at Continental - as instructed in the Delivery Schedule received by Supplier from the ordering Continental production location.

Supplier understands and agrees that dates in the Delivery Schedule shall be the date the Contract Product must arrive at the instructed delivery address - point of internal consumption at Continental - in the Delivery Schedule.

Supplier is obligated to manage its shipment of Contract Product so that the Contract Product arrives at Continental on the date specified in the Delivery Schedule. Delivery on time at the delivery address is of the essence and the responsibility of the Supplier. In order to meet the arrival date, the Supplier shall calculate the date of the planned pick-up by the forwarder, shall consider the transit time, and shall deliver the Contract Product so that the delivery arrives at Continental location premises on this date.

This applies for all terms of delivery and sourcing models, except for a VMI consignment process. In this case, Supplier must comply with the upper and lower stock limits.

Thus, Supplier has to take into account any applicable times for transportation, goods preparation etc. to make the deliveries ready for pick up or arrange shipment in time. Supplier is responsible to monitor on time pick up or dispatch. For consignment processes, special processes are agreed in Individual Logistics Agreement concerning point and time of deliveries.

Suppliers’ delivery capability is measured continuously depending on the Sourcing Model (more in CHAPTER 3: SOURCING MODELS and 7.2.1 DELIVERY CAPABILITY) and thus is one parameter in the logistics supplier evaluation.

In case the Supplier is not able to meet the date in the Delivery Schedule, Continental shall be notified immediately in writing. Faster or special transportation are to be arranged by Supplier, in the first place. Only in special cases and previously agreed with Continental, Continental may support in organizing the set-up of a premium freight.

Additional costs for any faster transportation (e.g. premium freights, hand carry etc.) that may be necessary to ensure that the Contract Products arrive at the respective Continental location on the date in the Delivery Schedule, shall be borne by the Supplier.

Continental reserves the right to charge to Supplier all additional costs connected with above mentioned special transportation and/or any delivery delay. Including premium freights, that Continental may incur with its customers caused by the late delivery of the Contract Products from the Supplier to Continental.

No matter which Party is organizing the premium freight the costs are charged according to cost-by-cause principle.

In case of emergency delivery, Supplier has to ensure full transparency and open communication channels during the transit time of the products until they are received at Continental ordering plant (e.g. mobile phone, tracking details etc.).

Deviations from the Delivery Schedule (part deliveries, deliveries before the deadline or deviation quantities and additional deliveries) caused by Supplier shall be carried out following prior agreement with the respective Continental location. Continental
reserves the right to reject or return at Suppliers’ expense any delivery of Contract Products received before or after the arrival date or in excess of the quantity specified in the Delivery Schedule. Continental shall have no obligation to accept delivery of or pay for Contract Product manufactured and/or delivered in advance of or in excess of any Production Release or Material Release provided to Supplier in the Delivery Schedule.

For Contract Products received before the delivery date or in excess of the scheduled quantity Continental reserves the right to place the excess material into storage at cost to Supplier along with all associated handling and associated storage costs.

The acceptance of delayed delivery shall not be a waiver to the reimbursement claim to which Continental is entitled.

For deliveries into consignment stores special terms are agreed in Individual Logistics Agreements (e.g. VMI)

4.4.2 Confirmation by Supplier

Continental usually does not require Supplier to confirm a Delivery Schedule if not otherwise agreed by Continental location and Supplier. This is referred to as ‘management by exception process’. With this any Delivery Schedule or call-off issued to Supplier within agreed capacities and flexibilities shall be legally binding for the Supplier upon receipt of the EDI transmission or other communications. Supplier understands and agrees that its confirmation of receipt is not necessary and that the Delivery Schedule or call-off shall be deemed confirmed by Supplier, except as set forth below.

In case the Delivery Schedule exceeds the agreed maximum capacity or the 20% (twenty) upward flexibility within the lead time, the Delivery Schedule shall be legally binding on the Supplier, unless a written objection is sent to and received by Continental within 2 (two) working days after receipt of the Delivery Schedule or call-off by the Supplier to which Supplier is objecting. If such objection is not timely received by Continental, the Delivery Schedule or call-off shall be deemed confirmed by and legally binding on Supplier.

If Supplier’s objection is timely received by Continental, Supplier shall then be obligated to provide Continental a detailed recovery plan or action plan within 3 (three) working days after the receipt of the Delivery Schedule or Call-off to which Supplier is objecting. The provision of any plan or the acceptance of any plan by Continental does not release the Supplier from the obligation to initiate commercially reasonable measures to meet the upward flexibility demand. The obligation to comply with previously confirmed deliveries is also not affected by this.

Only if Supplier is not able to meet provisions of the Delivery Schedule or the forecast information they must clearly point out the exact deviations and reasons to Continental in writing. If delivery within the usual transit times is jeopardized, Supplier has to inform Continental without undue delay significantly prior of the requested delivery date.

In case Supplier wants expressively to confirm Delivery Schedules, Supplier can send a delivery forecast message by EDI (see further details in 2.3.5 DELIVERY FORECAST PLANNED DELIVERY (DELPORP).

Example: If it seems likely, that Supplier cannot meet the delivery date or quantity, Supplier must inform Continental. When doing so he must state the reason for the delay in delivery and indicate a subsequent delivery date. In the event a serious backlog situation is likely, Supplier shall provide a recovery plan and action plan in order to go back to on time deliveries as early as possible.

4.4.3 Ramp up / Ramp down

Continental expects greater flexibility from Supplier during ramp up or ramp down. In this context, Supplier should also support small quantities for delivery. For first-time orders and ramp-up, lead-time is considered. In the event Supplier notices while monitoring incoming delivery instruction that lead-time is not considered, both Parties should consult each other and cooperate in good faith.

4.4.4 Cumulative Quantity

The Supplier can use cumulative quantities to monitor incoming delivery instructions (e.g. Delivery Schedule, call-off etc) by Continental for their plausibility, feasibility and to determine increases or decreases within a certain period of time.

Cumulative quantities are a running total at a certain date relating always to a certain point in the past, e.g. to the beginning of the calendar year, the start of a particular project, or the first transmission of the Delivery Schedule.

Continental ERP-System is able to process the following cumulative figures in EDI message to Supplier:

- the cumulative quantity of goods received up to the date of transmission of the Delivery Schedule, and
- a cumulative scheduled quantity (or cumulative delivery quantity), which might also be referred to as progress number.

The cumulative quantity of goods received shall be understood as the total quantity of Contract Products received and booked in Continentals ERP-System up to the date of transmission of the Delivery Schedule and starting with the first release of the...
Delivery Schedule - or a mutually agreed 'set-to-zero' date. The 'cumulative quantity of goods received' is communicated to Supplier within the Delivery Schedule message. This cumulative received quantity is also the starting point for the accumulation of the cumulative delivery quantity.

The **cumulative delivery quantity** might be designated as progress number and is the starting point for accumulation is the cumulated received quantity.

Supplier can use these cumulative figures to identify ~

- changes to a previous release of Delivery Schedule: cumulative figures enable Supplier to identify changes to a previous release of Delivery Schedule easily, as in every Delivery Schedule message, the consecutive number of the current release and transmission date together with the number of the previous release of Delivery Schedule is transmitted. Example: In figure 10 the cumulative delivery quantity transmitted in week 43 (release number 46) are 292,923pcs vs. 293,219pcs transmitted in week 44 (release number 47). Therefore demand increased by 1.196pcs within the same period.

- monitor deliveries in transit and not yet received by Continental: Note that in transit quantities are still included in the Delivery Schedule with the request arrival date together with the quantity. Supplier should use cumulated received quantities to plan next deliveries taking into account that in-transit quantities are still included in the Delivery Schedule.

- determine quantities for which Production Release or Material Release are provided

Therefore, during set-up of the EDI connection Supplier has to ensure that his IT-System can process cumulated quantities and should clarify any deviation to designation with the respective Continental ordering location.

![Figure 10 - Example of cumulated quantities](image-url)
5.1 Importance of Flexibility

Continental strives to communicate to Supplier a stable demand with reasonable fluctuations in volume production during series production; this process is based on both customer orders as well as the mid and long-term Continental rolling customer demand forecast (CDP). However, the proportion of concrete OEM's orders and demand forecast can vary. This depends on the OEM, their business model (commercial vehicle, aftermarket etc.) the region, and the associated complexity of predicting demand. Product variety within the automotive industry makes the planning process complex. OEM's demand is rarely perfectly stable. Frequently, OEM's know specific and fixed requirements by customers only a few days before the assembly of a vehicle starts. Changes - short or mid-term - in OEM demand are likely and influence the whole supply chain.

All this information is processed within Continental ERP-Systems taking into account capacity restrictions and certain planning logics to offset high fluctuations. However, fluctuations are reflected in the Delivery Schedule, which Suppliers receive from the any Continental location in regular intervals.

Fluctuations must be compensated by means of stock in the logistics chain as well as by flexibility of all partners within the complete supply chain. However, flexibility within the supply chain is limited due to capacity constraints, availability of raw material, cycle time, supplier lead-time and transportation time. All partners in the supply chain have to balance properly their capacities, inventories and other resources in order to correspond to market volatility. There might be periods of stable, increasing of falling demands. This volatility can hardly be predetermined as a lot of complexity is associated with this (e.g. material shortages, increased customer demand, economic slowdown etc.).

A delayed response affects supply, inventories and causes costs. Therefore, it is of the essence that Continental and Supplier ensures the necessary flexibility in the event of changes in demand.

The only option to manage flexibility is to balance risks throughout the whole supply chain and share risks between business partners. This approach requires trustful collaboration and information sharing between the Parties and is preferably combined with VMI consignment process.

Continental insists on this share of risk and expects its Suppliers to ensure the necessary flexibility in the event of changes in demand as described in the following sections.

5.1 Flexibility within Lead Time

OEM's expect Continental to be highly flexible even on short notice. And Continental expects its Suppliers to support normal fluctuations of the OEM even on short notice within a certain range. For this reason, Supplier shall ensure being capable to respond with the same flexibility within the lead-time in the event of changes in demand without any additional costs for Continental. To ensure this flexibility existing consignment inventory might be used.

In this context, flexibility within lead-time refers to the capability of the Supplier to respond to upward changes in cumulative quantity within the lead-time. It is the maximum variation of the cumulated delivery quantity within the lead-time permitted against the precedent Delivery Schedule.

Continental expects its Suppliers to provide a flexibility of minimum 20% (twenty percent) of the cumulated quantities within the lead-time in accordance with the latest rolling forecast and without any additional costs for Continental.

Appropriate solutions in the event of fluctuations going beyond the agreed flexibility shall be developed in cooperation between the Supplier and Continental.

Add-on costs for deliveries caused by fluctuations beyond the flexibility of +20% have to be agreed with Continental. These costs shall be kept as low as possible and must be approved by Continental on a case-by-case basis before the costs incur.

Lead-time in this context reflects the time needed (in weeks) between the date Continental places a first time order and the date of receipt of the Contract Products at the Continental production location. Included here are order preparation and release time, production cycle time, transportation time and receiving and inspection time.
Lead-time is neither transmitted in EDI messages nor considered for the calculation of the individual line items of a delivery schedule. As Continental regularly updates Delivery Schedules (continuous orders and rolling forecasts) and provides a forecast of up to 12 months, lead-time is taken into consideration only in case of first-time orders or high fluctuations in demand.

What does this mean for Supplier?

Requirements can be (1) rescheduled, (2) decreased, or (3) increased. Rescheduling means that current demands and forecasted demands are moved forward (push-out) or backwards (pull-in) by days or weeks with the next message of the Delivery Schedule. Continental is entitled to reschedule demands also within the lead-time with appropriate notice prior to the requested arrival date and increase or decrease demands.

Supplier will be informed of this changes usually early enough, this means within due time and with appropriate notice prior to the shipping dates. Additional demands for delivery within the first two weeks have to be communicated expressively by Continental to Supplier and have to be reviewed by and between the Parties.

The figure of cumulated quantities can be used to monitor deliveries and determine increases or decreases within a certain period.

If major non-plausible demand changes appear, Supplier should inform Continental who has to check the plausibility of demands.

Example: Demand per week is 1000pcs, the lead-time is 13 weeks. The cumulated demand within the lead-time is 13,000pcs. With a flexibility of 20%, this means that the maximum quantity to be ordered without additional costs is 15,600pcs. This means Supplier must be able to supply a maximum of 15,600pcs within a period of 13 weeks without additional costs. Outside of the lead-time the flexibility depends on the agreed capacity in the YPSA.

5.2 Production and Material Release

Production Release or Material Release expresses the obligation of Continental to purchase or reimburse Supplier for finished Contract Products. In no event shall Continental be liable to Supplier for any Contract Product manufactures in excess of the Production and Material Releases.

In case Continental changes Delivery Schedules within production release period or material release period without having scheduled corresponding future requirements, Continental is only liable for quantities for which Production release and Material Release was agreed. In case of cancellations, the Supplier shall act cost-consciously and in good faith to mitigate costs.

The decision of Continental shall be final and binding as to the whether the receipt of the Contract Products within a reasonable time is acceptable or whether, in lieu of such receipt, the Supplier shall be reimbursed.

A Production Release is a quantity determined by a time frame agreed in an Individual Agreement by and between Continental. For quantities within this period of time Continental commits to the Supplier to absorb (purchase or reimburse) finished Contract Products in case of decreases in the cumulative quantity within production release period without having scheduled corresponding future requirements at the time of cancellation. The end date for the quantities with production release is always calculated from the issuing date of the respective Delivery Schedule. The standard time frame depends on the category (e.g. LCD, PCP, Stamped Parts) of the Contract Product. In case of cancellation of Delivery Schedule Continental commits to reimburse Supplier for finished Contract Products (1) up to the amount of the cancelled Contract Product quantity at the time of cancellation, (2) only in case of decreases in the cumulative quantity within production release period, (3) only in case Continental cancels or withdraws for its convenience, and (4) without having scheduled corresponding future requirements at the time of cancellation.

Material Release expresses the obligation of Continental to reimburse specific raw material purchased in order to produce the Contract Products in case of sudden cancellations. In case Continental cancels Delivery Schedules for Contract Products within the Material Release period, Continental has to reimburse the material cost of such raw material for which the Supplier can prove that it could not be otherwise used within reasonable time and the Supplier has a purchase obligation to its supplier. Continental reserves the right to request the shipment of the cancelled raw material. In case of cancellation of Delivery Schedules for which a material release is provided, Continental commits to the Supplier to absorb raw material costs (1) up to the amount of the cancelled Contract Product quantity, (2) for raw material specifically ordered by Supplier, (3) for which the Supplier can prove that it could not be otherwise used (other products or customers), (4) only in case of decreases in the cumulative quantity within material release period, (5) only in case Continental cancels or withdraws for its convenience, and (6) without having scheduled corresponding future requirements at the time of cancellation.

The time frame for Production Release and Material Release is agreed and documented in an Individual Agreement. Depending on technical settings by and between Continental and the Supplier and the Preferred Sourcing Model this information may or may not be (1) communicated in the EDI transmission using standard identifiers, and (2) indicated in Delivery Schedules received by Mail/Fax by Continental as raw dates or such other designation established between Continental and Supplier during the set up.

In the EDI transmission the Production Release and Material Release is identified with qualifiers (scheduling conditions).
For example, depending on technical settings by and between Continental and Supplier the following qualifiers can be used to communicate Production Release or Material Release. However, due to customizing of the different Continental ERP-Systems, details have to be checked with the ordering Continental location or respective Continental EDI team.

<table>
<thead>
<tr>
<th>Scheduling Condition</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>SCC+1</td>
<td>Frozen horizon</td>
</tr>
<tr>
<td>SCC+2</td>
<td>Production Release</td>
</tr>
<tr>
<td>SCC+3</td>
<td>Material Release</td>
</tr>
<tr>
<td>SCC+4</td>
<td>Forecast</td>
</tr>
</tbody>
</table>

Figure 11 - Qualifiers in EDI message for planning time fences

In the event Continental cancels for its convenience without having placed future orders, Continental is only liable for quantities for which Production Release and Material Release was agreed. In case of cancellations, the Supplier shall act cost-consciously and in good faith to mitigate costs.

For calculation of the Production Release and Material Release in the event Continental cancels Delivery Schedules, multiple Delivery Schedules have to be compared and checked. This has to be done based on cumulated quantities to offset rescheduling due to fluctuations in demand. For every release of Delivery Schedule, the end date of the Production and Material Release Period has to be determined and the corresponding cumulated release quantity calculated. The delta between this quantity and the cumulated received quantity are the quantities for which Production Release or Material Release are provided.

Example:

Continental provides to Supplier 4 (four) weeks for Production Release and additional 3 (three) weeks for Material Release. In week 41.2014, Continental cancels Delivery Schedules for its convenience without having scheduled further quantities in the future. The Supplier manufactures the Contract Product specific for Continental. So far Continental received in total 282,951pcs (cumulated received quantity). A Production Release was provided for a quantity of 301,959pcs. According to the Delivery Schedule Continental ordered 289,431pcs. For the overhanging quantity of 12,529pcs, Continental has the obligation to purchase or reimburse Supplier if Supplier cannot mitigate the cost.

5.3 Frozen Horizon

The frozen horizon reflects a limited period of time in which automatic changes are kept to a minimum. This period of time does not exceed ten calendar days and it is granted upon discretion of Continental for ship-to-stock and CMI-sourcing models only.

Changes within this period have to be communicated to Supplier directly by Continental location. Nevertheless, regarding delivery dates and actual delivery quantity the last Delivery Schedule is decisive.

Usually this information is not included in an EDI message for Delivery Schedule. In case of sudden demand decreases, the obligation to absorb specific material costs and/or finished goods is depending on the defined Production and Material Release and not the frozen horizon.
It is Continental’s policy not to fix orders for a certain period ahead, but to provide Production Release and Material Release as liability instead.

In the event Supplier notices while monitoring incoming delivery instruction that demands are increased within very short notice, both Parties should consult each other and cooperate in good faith.
Chapter 6: Supplier Selection Process

This section is to inform potential suppliers about the supplier sourcing process in case of a new part introduction. Special focus is expected from Supplier in regards to logistics information requested by Continental in the course of the selection process. Deviations towards it are possible depending on the category of the raw material (electronics, mechanics, or electro-mechanic) or in the event of e.g. re-used parts.

6.1 Sourcing Process

The sourcing process is conducted by cross-functional teams and is linked to the qualification process to get the feasibility commitment from suppliers before final supplier(s) selection. Usually the supplier selection process consists in the following steps:

**Step 1:** When new parts are to be sourced and potential suppliers are identified, Continental Purchasing or Quality representative forwards the RFQ (Request for Quotation) to Suppliers. With the RFQ the Supplier receives a package with different documents (e.g. quality requirements, contracts, supplier component review template etc.). Within this RFQ-Package the Supplier receives also the Supplier Manual Logistics and Logistics Contracts. The Supplier should complete the forms as per Continental request. From SCMA (Supply Chain Management Automotive) perspective, at minimum the logistics part of the “supplier component review template” should be filled in completely and returned to Continental.

**Step 2:** Based on the feedback in the RFQ, Suppliers are pre-selected for sourcing and negotiation starts.

**Step 3:** Continental initiates a supplier component review (SCR) with pre-selected suppliers. Within this meeting the feedback of supplier in the ‘supplier component review template’ will be discussed.

**Step 4:** Based on the outcome of such SCR the final Suppliers are selected for sourcing.

**Step 5:** Final negotiation and business award to supplier.

Logistics weight and role in the sourcing process equals the roles of other functional departments (e.g. quality, purchasing).

6.2 Start of Series Production - Logistics

For every new Contract Product the delivery process must be coordinated closely between Supplier and Continental location. For example the following topics must be coordinated and finalized between the Supplier and Continental Logistics Department before the first delivery for series production on the latest:

- Preferred Sourcing Model,
- Packaging Concepts,
- Information Interchange (EDI),
- Shipping Documents of Contract Products,
- Directives, contracts and other agreements,
- First-time Suppliers have to hand in the MMOG/LE,
- Transport concepts,
- Definition of contacts,

It is Continental’s policy not to accept products that do not meet the requirements of the applicable drawings and quality specifications. Requests for deviations on nonconforming products have to be approved by Continental prior to shipment. Required capacities for ramp-up have to be coordinated with the responsible logistics contact for the specific part and ordering Continental location.
6.3 Supplier Component Review Template – Logistics Part

The ‘supplier component review template’ includes a section for logistics topics. Within this section Supplier has to commit to e.g. a Preferred Sourcing Model, packaging concepts, EDI, directives, contracts and other agreements, transport concepts, delivery terms and lead times. The information given by Supplier within this section serves as a first general evaluation of Supplier compliance to general logistic requirements of Continental.

When Supplier submits his proposal, he should fill in all applicable data and complete all required templates. Within the SCR Meeting both Parties will discuss open points. This includes also deviations to Continental’s logistics requirements.

For the packaging concept proposal, Supplier has to provide the data using the ‘Packaging Specification Data Sheet’ and for the transport concepts Supplier, should use the template for ‘Logistics Cost Break Down’. Please refer to ‘TST N09801.01-000 PACKAGING: DEFINITION, PROCESS REQUIREMENTS FOR CA PLANTS AND SUPPLIERS WORLDWIDE’.

6.4 Logistics Cost Calculation

For every new request for a new part number or upon request the Supplier is obliged to provide a logistics costs break down using the template for ‘Logistics Cost Break Down’ for each possible delivery mode to the responsible purchasing contact at Continental.

This form contains the assumptions for the quoted logistics service level according to the selected delivery term/INCOTERM and other potential logistics services.

A complete example - how to fill out the template - is included in template itself.

The filled-out logistics costs break down is part of our total landed costs approach. The total landed costs consisting of the material costs of a part and all logistics costs alongside the complete supply chain (packaging, transportation, handling, customs, warehousing, JIT/JIS concepts, etc) and forms the basis for the decision about the cost optimized inbound supply processes and the supplier selection.

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**LOGISTICS COSTS BREAK DOWN - SUPPLIER**

![Image of Logistics Cost Break Down Template]

*Figure 14 - Logistics Cost Break Down Template*
Chapter 7: Logistics Evaluation Processes

Continental and Supplier must ensure quality of supply chain processes and continuously improve. In order to meet this challenge, the following tools and processes are standard at Continental Automotive:

**Supplier Evaluation at Continental**

Continental evaluates the quality and logistics performance of its Suppliers on a monthly basis using standardized evaluation criteria. The results are incorporated in the annual evaluation of Strategic Suppliers to Continental called ‘Basic Annual Supplier Evaluation’ (BASE). Details on Logistics Supplier Evaluation are provided in section ‘7.1 SUPPLIER EVALUATION AT CONTINENTAL’.

**MMOG/LE**

Continental evaluates and optimizes its logistics processes based on the MMOG/LE V4 (Material Management Operations Guideline Logistics Evaluation) in order to ensure high logistics performance towards its customers now and in the future. Continental requests also its Suppliers to evaluate their logistics processes based on the MMOG/LE V4 and provide the result to Continental Automotive Group on a yearly basis.

For reference, and for better understanding of the MMOG/LE, an overview of its set-up, structure, and criteria is provided in ‘7.2.3 SELF ASSESSMENT (MMOG/LE) OF LOGISTICS PROCESSES’. However, information on the MMOG/LE and further instructions are available with the questionnaire itself.

**Supplier Classification with BASE**

Within BASE (Basic Annual Supplier Evaluation), the performance of Strategic Suppliers in the previous calendar year as well as its strategic potential is evaluated with focus on purchasing, quality, logistics and technology elements. BASE is an important tool in the strategic supplier management process at Continental and results have influence sourcing decisions, serve for supplier selection, and supplier classification.

**Logistics Audits at Supplier’s premises**

Upon request and Supplier approval, Continental conducts routine logistics audits at Suppliers’ premises to verify and assess the logistics systems, including compliance with all Continental logistics requirements.

**7.1 Supplier Evaluation at Continental**

Continental evaluates the logistics performance of its Suppliers on a monthly basis using standardized evaluation criteria. These are: the Delivery Capability, the degree of implementation of Preferred Sourcing Models (PSM Rate), feedback of the Self-Assessment MMOG/LE (if any) and a choice of service criteria. Details on the calculation of each logistics criterion are provided in ‘7.2 LOGISTICS SUPPLIER EVALUATION’. Supplier shall target to achieve 100% in each criterion and taken all criteria together the Suppliers’ performance sums up to 100% Logistics Performance. Each criterion is considered with a certain weigh according to its importance when calculating the total result.

<table>
<thead>
<tr>
<th>Criteria</th>
<th>Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Delivery Capability</strong></td>
<td>35%</td>
</tr>
<tr>
<td>Measuring of STS, CMI, VMI</td>
<td></td>
</tr>
<tr>
<td><strong>Service Criteria</strong></td>
<td>10%</td>
</tr>
<tr>
<td>Management of critical supply situations</td>
<td></td>
</tr>
<tr>
<td>Flexibility regarding Changes in Demand</td>
<td>10%</td>
</tr>
<tr>
<td>Information and Communication Behavior</td>
<td>3%</td>
</tr>
<tr>
<td>Shipping Documentation</td>
<td>4%</td>
</tr>
<tr>
<td>Labeling and Packaging</td>
<td>4%</td>
</tr>
<tr>
<td><strong>Self Assessment MMOG</strong></td>
<td>12%</td>
</tr>
<tr>
<td>Result of logistical Self Questionnaire</td>
<td></td>
</tr>
<tr>
<td><strong>PSM Rate</strong></td>
<td>22%</td>
</tr>
<tr>
<td>Share of preferred Sourcing Models (CMI / VMI / JIT)</td>
<td></td>
</tr>
<tr>
<td><strong>Logistics Performance</strong></td>
<td>100%</td>
</tr>
<tr>
<td>Total Result</td>
<td></td>
</tr>
</tbody>
</table>

*Figure 15 - Supplier Logistics Evaluation*
The monthly logistics performance is reported thru the SupplyOn Performance Monitor to Supplier once per month.

For Strategic Suppliers the monthly result is incorporated in the annual evaluation of Strategic Suppliers called ‘Basic Annual Supplier Evaluation’ (BASE). This yearly evaluation is also communicated to Supplier thru the SupplyOn Performance Monitor.

Depending on the outcome of the evaluation, Supplier is expected to define and implement appropriate corrective actions. If the logistics performance fails to meet the committed goals, Supplier shall implement immediate corrective actions and provide a get-well plan upon request. The plan should include actions of how to solve and how to avoid these sorts of incidents in the future. Deviation in actual performance may result in corrective actions to bring Supplier’s logistics performance in line with Continental expectations.

7.2 Logistics Supplier Evaluation Criteria

Continental evaluates the logistics performance of suppliers based on criteria, which are standardized. For better understanding of the evaluation, the calculation of each criterion is described below.

7.2.1 Delivery Capability

The criteria ‘delivery capability’ measures Suppliers’ ability to deliver the right quantity of the Contract Product on the date specified in the Delivery Schedule or in case of VMI the capability of Suppliers to keep the stock level for Contract Products within the agreed min/ max inventory limits. This approach is standard practice within the automotive industry.

Within Continental, the calculation of delivery capability is standardized and backed by an IT-System: when goods receipt is posted in Continental’s ERP System, instantly the delivery is evaluated with respect to date and quantity requested. Each and any goods receipt is evaluated on Contract Product basis vs. the information in the Delivery Schedule. The individual measurements are aggregated for each Continental location and the Continental Automotive Group each month and then represent a percentaged evaluation of Supplier’s monthly delivery capability.

- Calculation of Delivery Capability for Ship-to-Stock

In case of ship-to-stock sourcing model Supplier has to ensure that the correct quantity of Contract Product arrives at Continental on the date specified in the Delivery Schedule. The delivery capability measures the deviation in time to the date the quantity of the Contract Product must be received by Continental. These dates are indicated in the Delivery Schedule together with the required quantity.

Each delivery which is received ± 1 day from the requested delivery date and matches exactly the requested delivery quantity is valued with 100%. Early or late deliveries receive a proportional penalty deduction. In the event Continental receives a delivery too early this is subject to lower reductions as this represents a lower risk for Continental. Late deliveries are a risk; therefore, late deliveries are evaluated with a higher proportional penalty deduction.

In the event the quantity differs to the requested quantity, this difference is taken into account proportional to the quantity falling short or being delivered in excess. An over delivered quantity is calculated towards the next delivery item and results in a delivery that is too early.

The figure enclosed shows in ~

**Example 1:** How the delivery capability is measured for a shipment that arrives two days late (68%) or two days early (84%) vs. the request date.

**Example 2:** In the event, a delivery arrives 7 days late or 13 days too early the shipment is evaluated with 0%. These are the upper or lower limits to take into account that either storage capacity or resupply of Continental is at high risk.

**Example 3:** Continental receives 2500pcs of A2Cxxx on 05.02, but only 2200pcs were requested for 05.02, the delivery is evaluated as follows: Supplier receives 100% for the delivery of 2000pcs on 05.02. The over delivered 300pcs are evaluated for the next schedule line due on 07.02. The next delivery of 300pcs is due on 07.02. The 300pcs are delivered 2 days too early and therefore receive a reduction of 16%. The target achievement for the delivery on 07.02 is 84%.

![Figure 16 - Calculation of Ship to Stock Delivery Capability](image-url)
- **Calculation of Delivery Capability in case of CMI**

In case of CMI deliveries, only receipts within tolerance -10/+4 days from the requested delivery date get 100% evaluation (Example 1, Figure).

Beyond the tolerance range, early or late deliveries receive a proportional penalty deduction (Example 2). In comparison with ship-to-stock model, a higher tolerance is allowed since the supplier receives via EDI information about stock levels.

As a part of CMI consignment process Continental manages the material planning in terms of restocking and the Supplier resupplies the Contract Products as indicated in a Delivery Schedule. However, Supplier can optimize his delivery frequencies and deliver earlier or later as indicated in the Delivery Schedule since Supplier is well informed of the stock levels. However, due to storage capacity, Continental limits this tolerance on 10 days earlier; else, the storage capacity is exceeded.

![Figure 17 - Calculation of delivery capability for CMI](image1)

- **Calculation of Delivery Capability in case of VMI**

In the case of VMI, the delivery capability measures the compliance of the Supplier to keep the stock of Contract Products within the agreed minimum and maximum inventory limits. The limits are documented in Individual Logistics Agreements for VMI. The min inventory level is defined as the required stock in days/weeks based on the current averaged production demand. The max inventory level is defined as maximum inventories in stock in days/weeks based on the current production demand.

Continental's IT-System calculates the min/max levels once daily and checks the current stock vs. the agreed levels.

Stock levels within the defined limits get 100% evaluation, deviations from the defined min/max limits leads to a linear-proportional deduction up to 0%. If the current stock level falls 50% below the min limit or exceeds 150% of the stretched max limit the logistics performance is evaluated as 0%. The monthly result for delivery capability is an aggregated figure of theses daily measurements.

![Figure 18 - Calculation for delivery capability in case of VMI](image2)

Example: For Part Number A2Cxxxxxxx the averaged daily requirements are 534pcs/day based on the arithmetic average of the requirements in the upcoming 90 days. The min/ max level on 01.09.2014 is calculated based on the multiple thereof with the agreed max or min days of coverage. Here the Supplier shall ensure resupply within min (534pcs/day* 14 days, resulting to min 7,476pcs) and max (534pcs/day*28 days, resulting to max 14,952pcs). Current stock level is 6,000pcs. As 6,000pcs is below the minimum - which is 7,476pcs - but exceeds the stretched min limit (50% targets of the minimum limit amounting to 3,738pcs) Supplier’s delivery capability on 01.09.2014 is evaluated with 80%. Next day, on 02.09.2014 Continental withdraws 3,000pcs and the stock level is with 3,000pcs lower than 3,738pcs (50% target). Therefore, for 02.09.2014 Suppliers delivery capability is 0%.
7.2.2 PSM Rate

Continental requests its Suppliers to deliver the Contract Product according to the Preferred Sourcing Model decided by the Continental location and agreed in Individual Logistics Agreements. The PSM Rate measures the implementation degree of consignment or any other Preferred Sourcing Model.

The PSM Rate is defined as the ratio of goods receipt value for preferred sourcing models to the goods receipt value total on location, Contract Product, and Supplier level.

The Supplier receives an evaluation in this criterion according to the PSM Rate (e.g. a PSM Rate of 50% leads to a 50% score in the logistics evaluation of for PSM implementation). In case of no PSM is implemented, the Supplier receives a zero evaluation for PSM Rate. The PSM-Rate is not calculated on a year-to-date basis but covers the period of one month.

The PSM rate is calculated as follows:

\[
\text{PSM Rate} = \frac{\text{goods receipt value for preferred sourcing models}}{\text{goods receipt value total}}.
\]

7.2.3 Service Criteria

The term ‘Service Criteria’ describes a couple of predefined criteria that Continental uses to evaluate support and service of Supplier in day-to-day business. These criteria mirror how Continental ordering locations perceive these services in their day-to-day business.

In order to ensure comparability, each Continental location uses a standardized rating scheme. This questionnaire is enclosed. It includes all criteria together with a short description and a rating classification.

The result, if any, is communicated in the SupplyOn Performance Monitor on location level. Supplier should use this information to clarify expectations of Continental, take it as an indicator for good business collaboration. Supplier should track the results and react proactively to any deviation from the required results.

Standardized rating scheme:

- **Management of critical supply situations in percent (% PD):**

  The management of critical supply situations is evaluated. The Supplier receives the following scores as described:

  - 100% - Proactive information policy even on component level. Supplier manages all actions within its area of responsibility; supplier is cooperative in case of costs for special freight.
  - 60% - Supplier provides information only on request and manages special actions sometimes within its area of responsibility. There are frequently negotiations about costs for special freight.
  - 40% - Supplier provides information, which is sometimes incomplete, and only on request and initiates special actions only on request; always negotiates about costs for special freight.
  - 20% - Supplier informs only on request and always incomplete, special actions are almost impossible and special freight mostly on the expense of Continental.
- **Flexibility in percent (% FL)**

The capability to follow changes in the Delivery Schedule is evaluated. Supplier receives:

- 100% - in case he ensures the necessary flexibility.
- 60% - if Supplier mostly ensures the necessary flexibility.
- 40% - suppliers frequently confirms only with deviations and supplies less than required.
- 20% - Supplier has major difficulties to supply at the requested dates.
- 0% - Zero support in flexibility.

- **Information and communication behavior in percent (% IC)**

Evaluated is the compliance with EDI standards and the communication behavior. Supplier gets the full score in the event he informs proactively even in case of supply problems. Supplier is evaluated with a penalty reduction in the event a contact person could hardly be reached and information is provided only upon request. Supplier receives 0% in the event it is almost impossible to reach anybody and get adequate information.

- **Shipping documents in percent (% SD)**

The quality and completeness of delivery documents is evaluated. Supplier receives

- 100% - in case of complete compliance;
- 50% - in case Supplier fails sometimes; and
- 0% - in case Supplier fails in most cases.

- **Labeling/ Packaging in percent (% LP)**

The compliance with Continental standards on Labeling and Packaging specifications is evaluated. Supplier receives:

- 100% - in case of full compliance to the requirements of Continental;
- 50% - in case Supplier fails sometimes; and
- 0% - in case Supplier fails in most cases.

**7.2.3 Self Assessment (MMOG/LE V4) of Logistics Processes**

The Material Management Operations Guideline / Logistics Evaluation (MMOG/LE V4) is the standard for evaluating supply chain processes in the automotive industry. It is a tool that enables a comprehensive self-evaluation and which is used by all OEM’s and their suppliers for internal assessments, organization benchmarking, and improving supply chain performance.

Continental requests its Suppliers to evaluate their logistics processes based on the MMOG/LE V4 and provide the result to Continental Automotive Group on a yearly basis. The MMOG/LE V4 questionnaire is available for download on the AIAG or ODETTE website (www.aiag.org or www.odette.org) and requires a charge. Strategic Suppliers to Continental are requested to buy a copy, download, and fill in the English full version of the questionnaire and send it afterwards to Continental using the following email address mmogle@continental-corporation.com.

In case the Supplier does not submit the MMOG/LE V4, the Supplier understands and accepts a penalty deduction in the supplier evaluation. If the MMOG/LE V4 is not provided in due time, Supplier has to accept reductions in the overall logistics performance.

According to the result of such MMOG/LE (A-, B- or C-level) Supplier gets a fixed score. Supplier receives at minimum 75% if Supplier provides Continental a MMOG/LE V4 – even
if it is a C-Performance. This is because Continental honors Supplier’s effort to audit and benchmark their logistics processes to best practices within the automotive industry.

Continental expects that Supplier use the result of such evaluation to optimize its logistics processes in order to ensure high logistics performance. Moreover, Supplier understands that the Feedback and result is the basis to select suppliers for an improvement process and collaboration meetings. In case of poor results, Suppliers must provide Continental an action plan with corrective measures of how to avoid this situation in future.

**MMOG/LE V4 (Material Management Operations Guideline / Logistics Evaluation)**

The MMOG/LE V4 is developed and revised each 3 years by the two major automotive industry associations (American AIAG and European Odette). This is to ensure that the tool reflects current recommended business practices. Currently the MMOG/LE is published in its fourth Version and contains two assessments a full and a basic assessment.

The MMOG/LE V4 self-assessment tool is a complex spreadsheet and contains approximately 197 criteria questions (in the ‘full assessment’) evaluating an organizations fundamental with respect to supply chain processes and its sequence (e.g. how is data communicated, is there a risk management in place etc.).

Also for Tier 2+ Suppliers it is important to evaluate whether their logistics processes are working properly to cover the requirements of the automotive industry. Suppliers benefit from the self-assessment based on the MMOG/LE, because the tool:

- Establishes a best practice system for material planning & logistics (MP&L) within the automotive industry and benchmarks its organization’s processes against industry best practices.
- Audits organization’s processes whether they are adequate to ensure high performance now and in the future within the automotive industry.
- Identifies high risk processes within one’s organization e.g. capacity planning or contingency planning.
- Facilitates continuous improvement plans.

The full assessment includes 197 criteria within six chapters. Each criterion is weighted according to its importance and its contribution to reduce costs from errors, waste, and inefficient processes (designated as F1, F2 or F3 criterion in the assessment tool). Within the spreadsheet colors are associated to the different F1, F2 or F3 criterions (e.g. F2 is yellow).

The assessment generates a score and classification: Suppliers can achieve A-B-C ratings (in the full assessment) based on the score and classification:

| A | The organization is compliant in all key criteria and can demonstrate that its logistics processes are best practice. An ‘A’ score is achieved in case of (1) compliance to all F3 criteria, and (2) a total score of 90% or higher, and (3) non-compliance to less than ten F2 criteria. |
| B | The result indicates that the organization is deficient in some processes. An action plan and corrective actions should be set-up. ‘B’ score is achieved in case of (1) compliance to all F3 criteria, and (2) non compliance of less than 15, or higher than 10 F2 criteria, and (3) a total score equal or higher than 75% and less than 90%. |
| C | The organization is deficient in one or more key areas. An action plan has to be developed and implemented immediately in order to avoid impacts for customer activities. ‘C’ is achieved if the total score is less that 75% and in all other cases. |
Example: Supplier receives a C Result, because of his non-compliance in three fundamental F3 requirements even if Supplier is achieving a total score of 92%.

<table>
<thead>
<tr>
<th>TOTAL score</th>
<th>F3</th>
<th>F2</th>
<th>F1</th>
<th>L</th>
<th>Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>322%</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>340%</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>C</td>
<td></td>
</tr>
<tr>
<td>345%</td>
<td>11</td>
<td>11</td>
<td>11</td>
<td>C</td>
<td></td>
</tr>
</tbody>
</table>

Figure 22 - MMOG/LE Score Matrix (example, for information purpose)

7.3 Supplier Evaluation Reporting

Continental uses the SupplyOn Performance Monitor (PerMo) to communicate the results of the monthly (Logistics and Quality) and yearly (BASE) evaluation to their suppliers.

Note that a registration for SupplyOn and registration for this SupplyOn Service is required. All Strategic Suppliers to Continental are requested to register to SupplyOn by Continental. Suppliers that are not yet Strategic Suppliers for Continental can contact their respective purchasing contact or SupplyOn Customer Service for further details. The contact details for SupplyOn Customer Service are available on the Internet by performing an internet search entering ‘SupplyOn for Suppliers’.

7.3.1 Availability of Data

Continental’s IT-System continuously processes the data for delivery capability or PSM-Rate. However, data to SupplyOn Performance Monitor is transmitted only once a month to the SupplyOn Platform. The monthly supplier logistics evaluation (designated in SupplyOn Performance Monitor as Operational Evaluation Logistics) is viewable in the beginning of each month for the previous month and the last 12 months. Usually it is available every 8th working day on 0:00h (CET, German calendar).

The yearly BASE evaluation is viewable for Strategic Suppliers in the SupplyOn Performance Monitor at the beginning of the 2nd quarter for the previous calendar year.

7.3.2 How to work with SupplyOn Performance Monitor

Within the SupplyOn Performance Monitor application, a manual is available which describes how to read the evaluated criteria. Suppliers can download this information with a click on the phrase ‘Help for customer evaluation system’.

Figure 23 - SupplyOn - Help for customer evaluation system

For details of how to work with the SupplyOn Performance Monitor, please contact SupplyOn.

For reference and for better understanding the Logistics Evaluation on SupplyOn Performance Monitor an overview of its set-up, structure and criterions is provided below. However, details on the SupplyOn Performance Monitor and further instructions are available with SupplyOn Customer Service if needed.
7.3.3 Summary of the Supplier performance evaluation (in SupplyOn designated as Overview)

The overview summarizes the supplier evaluation of the precedent months, for quality and for logistics. Scrolling down the page the logistics result is available.

The logistics performance is summarized in a radar chart and a ranking of the worst performance in each logistics criteria.

The radar chart plots the scoring (blue line) of the supplier in each criteria along a separate axis that starts in the center of the chart (0% achievement) and ends on the outer ring (100% target achievement). With this, strengths and areas for improvement can easily be identified.

Example: In the figure enclosure Supplier has already a high degree in PSM rate of 96%, however delivery capability is with 71% weak. Supplier needs to improve in these criteria. In addition, it is recommended that Supplier improves his service criteria.

7.3.4 Monthly logistics performance (designated in SupplyOn as operational evaluation logistics):

With SupplyOn Performance Monitor the results for the logistics performance (click on ‘Operational Evaluation Logistics’) are available on a consolidated level for the Continental Automotive Group (as a whole) and on location level for the previous twelve months (rolling history).

It starts at a consolidated level and can be further drilled-down to location (click on ‘Logistics performance, All’) and then to the previous 12 months (click on ‘History’).

With this information, Supplier shall do detailed analysis.

Further details on e.g. part number level are available upon request at the respective Continental location contact (if required).

7.3.5 BASE for strategic suppliers (designated in SupplyOn as Strategic Evaluation)

Within BASE Continental evaluates the supplier based on his performance and his strategic potential. The results are available consolidated for each criterion for the Continental Automotive as a whole for the previous two-calendar years. The logistics evaluation in BASE is designated in SupplyOn in the category as ‘Supply’. Beyond logistics criteria, further criteria are applied within BASE to assess the supplier’s performance with respect to purchasing, finance, and quality.
Chapter 8: Supplier Capacity Update and Risk Management Processes

It is mandatory for the supplier to have a risk management processes in place in order to ensure deliveries even in abnormal situations. Risk management processes could be by way of example processes, which supports in identifying, analyzing and taking steps to eliminate and prevent possible bottlenecks in logistics processes (e.g. escalation path) or contingency planning. Upon request, Supplier should provide such risk management processes to Continental.

Continental Automotive has implemented certain risk management processes that trigger a set of countermeasures. These processes are by way of example:

- ‘Supplier Capacity Update’ - a process to detect and avoid supply chain problems,
- Global Material Shortage Management Process: an escalation process in the event of a material shortage affecting more than one plant,
- Supplier Audits together with MMOG/LE and Logistics Supplier Evaluation, or
- Supplier Collaboration Meetings.

8.1 Supplier Capacity Update

Supplier is solely responsible for planning its capacity and its manufacturing capacities. Beyond this, Continental conducts the Supplier Capacity Update with selected suppliers to ensure supply chain security.

The ‘Supplier Capacity Update’ is a process in which business partners consult each other with the aim to detect and avoid supply chain problems at an early stage. This process is conducted in addition to general processes (e.g. YPSA) for selected suppliers.

In general, Supplier must be able to meet Continental Automotive requirements. The planned annual volume for delivery per item / parts family is defined and mutually agreed upon in Individual Purchasing Agreements by and between Continental Purchasing and Supplier. Based on this Suppliers have to reserve capacities to ensure production of defined volumes including additional capacities up to 30% (thirty percent) of the projected annual volume. With this Supplier guarantees the capacity according to the Individual Purchasing Agreement and secures the supply of Contract Products, including the supply of raw materials by pre-suppliers. The Delivery Schedule or forecast information is the planning basis.

In general, Continental expects its Suppliers to inform the respective Continental Purchasing and Logistics department in case it is foreseeable that the updated quantities in the Delivery Schedule exceed the planned volume plus the additional capacities in the mid to long-term (between 2 to 12 months). In such an event, Supplier has to provide an action plan for that both Parties agree in good faith on problem-solving measures.

However, Continental has the ‘Supplier Capacity Update’ as a risk management process in place in order to detect and avoid supply chain problems for selected suppliers. The Supplier Capacity Update will be conducted at the beginning of March, after the yearly price negotiations and share implementation. As an output of this process, Suppliers might receive a Supplier Capacity Update Report. In exceptional cases, this might happen as well at other dates.

The Supplier Capacity Update Report includes together with general information the following analysis for each affected Continental part number ordered by Continental plants:

<table>
<thead>
<tr>
<th>Location</th>
<th>Country</th>
<th>Global Category</th>
<th>LOC/ Material Number</th>
<th>Description</th>
<th>Central Material Num</th>
<th>MODIAS Yearly ConQty</th>
<th>VenOrd Qty (CurRt Age-Dec Inv)</th>
<th>%Var of MODIAS and VO Qty (1-12)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tucson</td>
<td>US</td>
<td>PC6</td>
<td>2641220100100</td>
<td>PC6*PR-40C</td>
<td>A2C00086900</td>
<td>11.090 ST</td>
<td>14.772 ST</td>
<td>35</td>
</tr>
<tr>
<td>Silo</td>
<td>RO</td>
<td>PC6</td>
<td>264098550100</td>
<td>PC6*PR-40C</td>
<td>#</td>
<td>3.422 ST</td>
<td>5.199 ST</td>
<td>49</td>
</tr>
<tr>
<td>Silo</td>
<td>RO</td>
<td>PC6</td>
<td>2641394000100</td>
<td>PC6 PR-40S</td>
<td>A2C031553400</td>
<td>6.403 ST</td>
<td>8.628 ST</td>
<td>222</td>
</tr>
</tbody>
</table>

- The volume (monthly averaged), which was agreed during the annual price negotiation (designated in the report as “MODIAS Yearly ConQty”).
- The current order quantities (monthly averaged and designated in the report as “VenOrd Qty”), which the supplier receives weekly as delivery schedules with an 18 month forecast. All quantities are monthly averaged without taking into account seasonal or product life cycle effects.
- The deviation in % of YPSA vs. Vendor Order. The result is marked in red if the difference is above the in the YPSA agreed flexibility.

Seasonal or product life cycle effects are not taken into account.
The supplier is asked to check its capacity if he can support the monthly quantities shown under ‘VenOrd Qty’ and in addition the agreed flexibility rate on top. That means: the requested quantity is calculated with the ‘vendor order quantity’ plus (vendor order quantity multiplied with flexibility rate).

The supplier shall give feedback on this topic within an appropriate timeframe.

In case of negative capacity feedback, the supplier and Continental will work closely together to search for and to implement appropriate solutions. Continental reserves the right to invite the supplier to further meetings to clarify and solve the situation. In this case, the supplier shall provide any requested information like shift models or capacity utilization ratios and an action plan.

For all Contract Products with reductions or increases within the agreed flexibility, the conditions of the YPSA and GSA do apply. This means, the Supplier is obliged to deliver the product parts on time and in the right quantity, according to the delivery schedules, to the Continental Location.

8.2 Risk Management - Material Shortages

If a material shortage is foreseeable, and might affect the supply of Continental, Supplier must initiate countermeasures without undue delay. The primary objective is to avoid production bottlenecks at Continental. In case of a Material Shortage, Supplier is required to inform the respective Purchasing and Logistics Departments of Continental immediately and to manage the Material Shortage and any Delivery Schedule to ensure 100% on-time delivery to Continental.

Material Shortage shall mean a situation where the quantity supplied of a specific Contract Product falls short of the quantity ordered at a given time and at a given place. In the event a Material Shortage affects more than one plant, the material shortage is referred to as allocation. Allocation shall mean a Material Shortage affecting more than one plant and a decision is needed to determine what quantity of Contract Product will be delivered to each plant and Continental has declared the Material Shortage as allocation and named an allocation manager. Continental reserves the right to decide whether an allocation shall be started.

Continental expressly reserves the right to claim costs, expenses, and damages which arise during an Allocation.

Upon request, the Supplier shall provide detailed information about the shortage situation as follows:

- List of Contract Products supplied to Continental, Supplier sees as necessary to be taken in Allocation,
- Weekly global capacity allocated to Continental of each Contract Product and/or contract product family,
- Root cause of the Material Shortage,
- Action plan and get-well plan including: estimated date of problem resolution and closure date of the Allocation,
- Output plan, and
- Shipment tracker

The Supplier shall install a worldwide responsible coordinator who will coordinate the distribution of available Contract Products with the respective responsible contact at Continental. The Supplier undertakes all efforts to resolve the shortage situation as fast as possible.

Suppliers shall develop, establish, and implement emergency plans to ensure that supply to Continental is not disrupted.

Chapter 9: Delivery Terms

Supplier and Continental agree on delivery terms or CA trade terms according to the specific requirements of the supply chain. Continental Purchasing department fixes the terms of delivery in the Yearly Pricing Agreement (YPSA). Preferred delivery terms are DDP, DAP, CA-DAP and CA-DDP.

CA-DAP and CA-DDP are described in the TST N09800.02-001; Continental Automotive Trade Terms. Delivery terms (Incoterms) will be handled exclusively in accordance with Incoterms 2010 of the ICC or its current valid version.

According to the agreed delivery trade term the nomination of the forwarder will be decided.

This Continental Technical Standard Norm is available for download
- on the Continental Internet page ‘For Suppliers’ on the worldwide web, using the following link: http://www.conti-online.com/www/automotive_de_en/general/contact_services/suppliers_logistics_en.html;
- by performing an internet search and entering the TST-no: ‘TST N09800.02-001’;
- via SupplyOn Document Manager; or
- otherwise upon request.

Supplier understands it shall be obligated to obtain and review the TST.
Chapter 10: Labeling of Contract Products

The requirements to Labeling of Contract Products are specified in Continental Technical Standard-Norm (TST N09800.03-000, Requirements on marking of goods). This CA TST is by reference incorporated in this Supplier Manual Logistics and describes the requirements concerning which label format is preferred and accepted by Continental, the positioning of labels on the smallest packaging unit and how to fix labels. This document is available for download on the worldwide web by entering 'http://www.conti-online.com/www/automotive_de_en/general/contact_services/suppliers_logistics_en.html' or can be provided to Supplier by Continental via SupplyOn or otherwise upon request. Supplier understands it shall be obligated to obtain and review this TST.

Chapter 11: Packaging

Definition, process, and requirements to Packaging (expendable or returnable) are specified in Continental Technical Standard-Norms 'TST N09800.01-000, Packaging: Definition, Process, and Requirements'. This CA TST is by reference incorporated in this Supplier Manual Logistics. In order to respond to specific packaging requirements this CA TST can be supplemented by location or region specific regulations.

These packaging specifications describe general packaging requirements, processes and Continental Automotive packaging standards (standard types for expendables and returnables etc.) and specific packaging requirements (e.g. IPPC, ESD, corruptions prevention, humidity control, REACH/ SVHC etc). In addition, the Continental Technical Standard Norms describe procedures for definition of packaging concepts and specification 'TST N09801.01-000 Packaging-Specification-Data-Sheet'.

This Continental Technical Standard Norm is available for download
- on the Continental Internet page ‘For Suppliers’ on the worldwide web, using the following link: http://www.conti-online.com/www/automotive_de_en/general/contact_services/suppliers_logistics_en.html;
- by performing an internet search and entering the TST-no: ‘TST N09800.01-000’;
- via SupplyOn Document Manager; or
- otherwise upon request.

Supplier understands it shall be obligated to obtain and review the TST.

Chapter 12: Dispatch and Transportation

The requirements to Dispatch and Transportation are specified in Continental Technical Standard-Norms ‘TST N09800.02-000 Transportation, Customs/Foreign Trade and Export Control’ and ‘TST N09800.02-001 Continental Automotive Trade Terms’ which by reference is incorporated in this Supplier Manual Logistics.

This Continental Technical Standard Norm is available for download
- on the Continental Internet page ‘For Suppliers’ on the worldwide web, using the following link: http://www.conti-online.com/www/automotive_de_en/general/contact_services/suppliers_logistics_en.html;
- by performing an internet search and entering the TST-no: ‘TST N09800.02-000’ and ‘TST N09800.02-001’
- via SupplyOn Document Manager; or
- otherwise upon request.

Supplier understands it shall be obligated to obtain and review the TST.

Chapter 13: Customs/ Foreign Trade, Security Handling

The requirements to Customs, Foreign Trade and Security Handling are specified in Continental Technical Standard-Norms (TST N09800.02-000; Transportation, Customs/Foreign Trade and Export Control) which by reference is incorporated in this Supplier Manual.

This Continental Technical Standard Norm is available for download
- on the Continental Internet page ‘For Suppliers’ on the worldwide web, using the following link: http://www.conti-online.com/www/automotive_de_en/general/contact_services/suppliers_logistics_en.html;
- by performing an internet search and entering the TST-no: ‘TST N09800.02-000’
- via SupplyOn Document Manager; or
- otherwise upon request.

Supplier understands it shall be obligated to obtain and review the TST.
Contacts within Continental Supply Chain Management Automotive

For further information or questions, please use following email addresses:

**Supplier Logistics - Supplier Manual Logistics**

07WWFMCSL@continental-corporation.com

**MMOG /LE Feedback**

mmogle@continental-corporation.com

**Customs, Transport & Packaging**

Customs: customs-foreign-trade@continental-corporation.com

Transportation: transportation-design@continental-corporation.com

Packaging: packaging.technics@continental-corporation.com
### Frequently used Definitions and Abbreviations

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<td>3PL</td>
<td>Third Party Logistics Provider</td>
</tr>
<tr>
<td>8D</td>
<td>8 Disciplines</td>
</tr>
<tr>
<td>AIAG</td>
<td>Automotive Industry Action Group</td>
</tr>
<tr>
<td>ANFAVEA</td>
<td>Associação Nacional dos Fabricantes de Veículos</td>
</tr>
<tr>
<td>ANSI</td>
<td>American National Standards Institute</td>
</tr>
<tr>
<td>AQP</td>
<td>Advanced Quality Planning</td>
</tr>
<tr>
<td>ASEAN</td>
<td>Association Of South-East Asian Nations</td>
</tr>
<tr>
<td>ASN</td>
<td>Advanced Shipping Note</td>
</tr>
<tr>
<td>BASE</td>
<td>Basic Annual Supplier Evaluation</td>
</tr>
<tr>
<td>CA</td>
<td>Continental Automotive</td>
</tr>
<tr>
<td>CA TST</td>
<td>Continental Technical Standard-Norms</td>
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<tr>
<td>CMI</td>
<td>Customer Managed Inventory</td>
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<tr>
<td>CSV</td>
<td>Character Separated Values data format</td>
</tr>
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<td>DIN</td>
<td>Deutsches Institut für Normung</td>
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<tr>
<td>EAR</td>
<td>Export Administration Regulations</td>
</tr>
<tr>
<td>ECCN</td>
<td>Export Control Classification Number</td>
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<tr>
<td>EDI</td>
<td>Electronic Data Interchange</td>
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<tr>
<td>EDIFACT</td>
<td>International EDI standard (Electronic Data Interchange For Administration, Commerce, and Transport)</td>
</tr>
<tr>
<td>ESD</td>
<td>Electrostatic Discharge</td>
</tr>
<tr>
<td>ESP</td>
<td>External Service Provider</td>
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<tr>
<td>EU</td>
<td>European Union</td>
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<tr>
<td>FIFO</td>
<td>“First In, First Out” principle</td>
</tr>
<tr>
<td>GALIA</td>
<td>Groupement pour l’Amélioration des Liaisons dans l’Industrie Automobile</td>
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<tr>
<td>MMOG/LE</td>
<td>Materials Management Operations Guideline / Logistics Evaluation</td>
</tr>
<tr>
<td>GXS</td>
<td>Global eXchange Services.</td>
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<tr>
<td>IPPC</td>
<td>International Plant Protection Convention</td>
</tr>
<tr>
<td>ISPM 15</td>
<td>International Phytosanitary Measure (developed by IPPC)</td>
</tr>
<tr>
<td>ISO</td>
<td>International Standards Organization</td>
</tr>
<tr>
<td>JAMA/JAPIA</td>
<td>Japanese Automobile Manufacturers Association / Japan Auto Parts Industries Association</td>
</tr>
<tr>
<td>JIT</td>
<td>Just In Time</td>
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<tr>
<td>LU</td>
<td>Loading Unit</td>
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<tr>
<td>MRP</td>
<td>Material Resource Planning</td>
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<tr>
<td>MSL</td>
<td>Moisture Sensitivity Level</td>
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<tr>
<td>NAFTA</td>
<td>North American Free Trade Agreement</td>
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<tr>
<td>ODETTE</td>
<td>Organization for Data Exchange by Tele Transmission in Europe</td>
</tr>
<tr>
<td>OFTP</td>
<td>ODETTE File Transfer Protocol</td>
</tr>
<tr>
<td>PE</td>
<td>Polyethylene</td>
</tr>
<tr>
<td>PerMo</td>
<td>SupplyOn Performance Monitor</td>
</tr>
<tr>
<td>Abbreviation</td>
<td>Description</td>
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<tr>
<td>PET</td>
<td>Polyester</td>
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<tr>
<td>PP</td>
<td>Polypropylene</td>
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<td>PTN</td>
<td>Product Termination Notification</td>
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<td>PVC</td>
<td>Polyvinyl chloride</td>
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<tr>
<td>SupplyOn</td>
<td>Electronic Marketplace for Automotive Suppliers</td>
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<tr>
<td>TSA</td>
<td>Transportation Security Administration</td>
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<tr>
<td>VCI</td>
<td>Volatile Corrosion Inhibitor</td>
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<td>VDA</td>
<td>Verband der Automobilindustrie (German Association of the Automotive Industry)</td>
</tr>
<tr>
<td>VMI</td>
<td>Vendor Managed Inventory</td>
</tr>
<tr>
<td>WEB EDI</td>
<td>Web based Electronic Data Interchange</td>
</tr>
<tr>
<td>WW</td>
<td>Worldwide</td>
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Editor
Continental Automotive Group
SCMA NR