

Delivery time: definition, KPIs and management in industrial procurement

Delivery time is the period between the order or order confirmation and the goods receipt at the customer. In industrial procurement, it is one of the most important award criteria alongside price and quality and directly influences inventory levels, planning reliability and liquidity. Those who systematically measure delivery times, manage them contractually and optimise them together with suppliers reduce tied-up capital and the risk of production interruptions. This article explains the definition, measurement, management and typical pitfalls surrounding delivery time.

Key facts

- Delivery time frequently covers the phases of order confirmation, manufacturing or picking, despatch and goods receipt.
- In practice, a distinction is made between planned (promised) and actual delivery time; on-time delivery reflects the degree to which they match.
- Typical benchmark values range from a few days for catalogue goods to several months for customer-specific manufactured parts.
- Safety stock and replenishment time depend directly on the delivery time and its variance.
- Delivery times are among the central award criteria in tenders and should be fixed contractually.
- Digital tools such as supply chain analytics improve forecast accuracy and early escalation in the event of delays.

Definition: delivery time

Delivery time describes the agreed or actually measured period from triggering the demand or placing the order through to availability of the goods at the receiving location. It is a core concept of order processing and an immediate component of a supplier's delivery capability.

Distinction from replenishment time and throughput time

From a procurement perspective, replenishment time covers the entire cycle from demand notification via order and transport through to availability – it is therefore usually longer than the pure delivery time from order despatch. The throughput time in the supplier's production, in turn, is only one segment. Buyers should separate these terms cleanly, because planning parameters such as safety stock are based on the replenishment time and its variance, not on the mere transport duration.

Planned versus actual delivery time

The planned delivery time is the date promised in the framework agreement or the order confirmation. The actual delivery time results from the goods receipt in the system. The difference between the two values feeds into on-time delivery and is also a central input for supplier evaluation and schedule monitoring. In practice, it is advisable to systematically record and follow up on deviations above a defined tolerance – frequently one to three days depending on material criticality.

Components and influencing factors of delivery time

A delivery time consists of several segments, each of which harbours its own optimisation potential. Anyone who only looks at the total figure can easily overlook where time is actually lost.

Phase model: from order to goods receipt

Typical segments are order confirmation, material procurement at the supplier, manufacturing or picking time, packaging and despatch, as well as goods receipt with inspection and stock posting. For customer-specific parts, an engineering or release-related lead time is frequently added. In practice, a value stream analysis at the supplier often reveals that waiting times account for the largest share of the total delivery time – not the manufacturing itself.

External influencing factors

Raw material availability, utilisation of sub-suppliers, transport capacity, customs and export processes (including HS classification for customs clearance) as well as seasonal peaks such as year-end or industry trade fairs significantly influence delivery time. Regulatory evidence such as the long-term supplier declaration (LSD) required when selling steel and aluminium products can also prolong processes if it is not routinely available. Buyers should take such influencing factors into account in the market model and in supplier evaluation.

Methods and approach for managing delivery time

Delivery times can be managed through a combination of contractual fixation, forward-looking planning and active collaboration with suppliers. The lever lies less in individual renegotiation than in systematic process design.

Contractual agreements and sourcing

Promised delivery times, tolerances and conventional consequences belong in framework agreements and purchasing terms. In tenders, delivery time should be weighted as an explicit award criterion alongside price – a lower price quickly loses value if the longer delivery time forces higher safety stocks. The sourcing wave plan can also be used to strategically define for which material groups short, flexible suppliers are preferred and for which cost-effective but slower sources.

Inventory planning and stock strategy

Planning parameters such as reorder point and safety stock are derived from the delivery time and its variance. The higher the variance of the delivery time, the larger the required buffer – with a direct effect on the target cost calculation and the tied-up liquidity. Cost avoidance here frequently arises less from price pressure than from shorter and more stable lead times. For C-parts, catalogue management with fixed stored delivery times can additionally increase process speed.

Collaboration with suppliers

Joint forecast handovers improve forecast accuracy on the supplier side and enable early capacity planning. Regular schedule monitoring, clear escalation paths and a structured defect notice in the event of late delivery create binding force. Where critical single sources exist, supply chain resilience management is required: build up second sources, examine alternative electronics or materials, and systematically monitor delivery times as an early indicator of supplier risks.

Key KPIs relating to delivery time

Delivery times can only be managed if they are measurable. A handful of KPIs is sufficient in practice to make delivery performance transparent and to feed it into supplier negotiations and supply chain analytics.

On-time delivery and LTIF

On-time delivery (OTD) sets punctual deliveries in relation to all deliveries. In addition, the supplier performance index (LTIF) frequently measures schedule adherence and quantity adherence combined. In practice, values above 95 per cent are regarded as a good benchmark for series parts; for critical A-material, targets should be set higher. What matters is whether the measurement date is the agreed date or the goods receipt – the definition must be documented uniformly.

Average and maximum delivery time

Besides the mean value, the variance is decisive, because inventory planning is based on the unfavourable cases. Reorder point coverage and the average replenishment time per material group show where capital is tied up. These KPIs also serve as an argument in negotiations: a supplier who halves their variance measurably reduces the customer's inventory – a fact that can even be monetised via a cost breakdown.

Risks and controls in delivery time management

Long or volatile delivery times jeopardise production, customer commitments and liquidity. Effective controls combine early warning, contractual safeguards and operational discipline in goods receipt.

Early warning and escalation

Automated schedule monitoring in the system, binding call-offs and regular supplier jour fixe detect delays at an early stage. For critical items, a defined escalation path with clear responsibilities and response times helps. Supply chain analytics can set warning thresholds per material group and identify patterns, such as seasonal deterioration with particular suppliers.

Contractual and procedural safeguards

Late deliveries should be regulated contractually: reminder procedures, consequences of default and, where applicable, recourse rights for resulting costs. At the goods receipt interface, clear acceptance processes and a documented three-way match (order, goods receipt, invoice) provide the basis for evidence of default and clean payment blocking. In the event of quality problems with late delivery, a structured defect notice supports the enforcement of claims; whether and when warranty rights apply must be examined contractually and legally on a case-by-case basis.

Avoiding false incentives

Anyone who rates delivery times solely as short may be rewarding suppliers for optimistic commitments that later fall through. Balanced award criteria that assess schedule adherence based on history, and audit tasks as part of cycle counting of the supplier master data, are better, in order to ensure realistic master data delivery times. Outdated lead times in the system are one of the most common causes of planning errors.

Current developments: shorter cycles, more transparency

Delivery times are under dual pressure: customers expect faster availability, while global supply chains have become more vulnerable to disruption. Digital transparency and sustainability requirements are additionally changing delivery time management.

Digitalisation and real-time transparency

Supplier portals, EDI connections and shipment tracking are gradually replacing manual status enquiries. Artificial intelligence is increasingly being used in practice to derive reliable delivery time forecasts per supplier and region from historical and external data. This improves the forecast accuracy of one's own inventory planning – a prerequisite for leaner stocks without production risk.

Regionalisation and resilience

Many companies are relocating part of their sourcing closer to the sales market in order to reduce transport times and susceptibility to disruption – often deliberately against higher unit costs. Delivery time thus becomes a strategic parameter alongside price. The sustainability dimension is also growing: shorter transport routes reduce the supply chain carbon footprint (SCF), and requirements from supply chain due diligence evidence or the packaging law (VerpackG) – for example through packaging reduction – influence packaging and despatch processes and thus indirectly handling time.

Typical metrics

On-Time Delivery (OTD): > 95%

Usual target value for series parts; document the definition of the measurement date

Average delivery time: material-dependent, frequently 2–12 weeks for manufactured p

Always evaluate by material group and supplier

Delivery time variance: if possible < ±3 days tolerance

Determines the required safety stock

Schedule adherence per supplier evaluation: > 95%

Feeds as a weighted criterion into supplier negotiations and sourcing decisions

Practical example

A medium-sized mechanical engineering company with around 400 active suppliers repeatedly experienced delivery delays of several weeks for special parts, even though the master data showed a delivery time of twelve working days. An analysis showed that most of the delay arose between order confirmation and production start, because release drawings were missing and call-off processes were unclear.

- Clean up delivery times in the master data pool using cycle counting and make them realistic by material group
- Integrate the drawing release process into order processing and measure it from order despatch
- Include delivery time and schedule adherence as weighted award criteria in framework agreements
- Weekly jour fixe with the three most critical suppliers, including defined escalation levels

Conclusion

Delivery time is far more than a transport logistics metric: it determines inventory levels, planning reliability, customer commitments and ultimately the competitiveness of one's own offering. Buyers are well advised to weight it as an independent award criterion rather than subordinating it to price alone. What matters are clean master data, a uniform measurement definition and the consistent separation of planned and actual delivery time. Those who detect delays early, safeguard them contractually and work with suppliers on the actual waiting times often achieve greater effects than through pure renegotiation. Short-term delivery time advantages should always be weighed against inventory costs and supplier risks.

Frequently asked questions

What does delivery time mean?

The delivery time (lead time) is the period between the order or order confirmation and the goods receipt at the customer. It typically covers order confirmation, manufacturing or picking, despatch and receipt. In procurement, it is a central award criterion alongside price and quality.

What is the difference between delivery time and replenishment time?

The delivery time begins with the order and ends with goods receipt. The replenishment time also includes internal lead times such as demand identification, approval and order processing. For inventory planning and for setting safety stock levels, the replenishment time is therefore the relevant value.

What is a typical delivery time in industry?

This depends heavily on the material: catalogue and stock items are frequently delivered within a few days, series parts from manufacturing typically within two to twelve weeks, and customer-specific components can take several months. For planning purposes, the variance of delivery times matters more than the average.

How can delivery times be shortened?

Effective levers are binding call-off and forecast processes, realistic master data, defined escalation paths and joint value stream analysis with the supplier. Regionalisation of sourcing, consignment stock and reducing approval and inspection loops also effectively shorten lead times. Price discounts bought at the expense of longer delivery times should be weighed against the additional inventory.

What happens if the delivery time is exceeded?

The buyer first checks whether a late delivery has occurred and issues a written reminder setting a deadline with reference to the contractual provisions. In the event of default, consequences such as cover procurement (self-performance), contractual penalties or damages may have been agreed; their enforceability must be examined legally on a case-by-case basis. In parallel, an operational solution should be found for ongoing production, for example through emergency stocks or second sources.

Why do delivery times vary so much between suppliers?

Common causes are fluctuating order capacity, dependencies on sub-suppliers, material shortages, capacity-related transport bottlenecks, and unclear or late demand notifications from the customer. Inaccurate master data and a lack of process discipline in order confirmation also contribute. A systematic analysis of actual delivery times per supplier reveals the patterns.