

# Carrier Performance: systematically evaluating the freight performance of transport providers

Carrier Performance refers to the systematic measurement and evaluation of the performance of transport providers and freight forwarders across the entire supply chain. For industrial buyers it is a central instrument for objectively managing delivery reliability, transport costs and damage rates. Those who measure Carrier Performance consistently can allocate freight volumes on a data-driven basis, develop or replace weak providers and detect supply failures early. The term is thus at the core of transport and logistics procurement in the manufacturing industry.

## Key facts

- Carrier Performance covers KPIs such as delivery reliability (OTD/OTIF), transit times, damage rate, billing accuracy and communication quality.
- In practice, scorecards with weighted criteria have become established, typically evaluated monthly or quarterly.
- Delivery reliability values of over 95 to 98 per cent are commonly regarded as the target for established industrial lanes.
- Evaluation results typically feed into carrier rankings, volume allocation, freight negotiations and contract renewals.
- The data basis consists of shipment data from TMS, ERP or carrier interfaces (e.g. via EDI or cXML).
- Carrier Performance is closely interlinked with procurement strategy, delivery schedule management and complaint management.

## Definition: Carrier Performance

Carrier Performance describes the measured ability of a transport provider to move shipments in accordance with the agreement, punctually, undamaged and at the budgeted costs. It is thus the logistics counterpart to supplier evaluation in classic goods procurement.

## Distinction from general supplier evaluation

While classic supplier evaluation looks at quality, price and reliability of material suppliers, Carrier Performance specifically targets providers of transport and forwarding services. The evaluation logic is similar — scorecards, weighting, feedback meetings — but the metrics are more operational: transit times, collections at the agreed time, documentation quality such as correct packing list and consignment note data. In many companies, both evaluations feed into a common supplier portfolio so that buyers can manage freight providers and material suppliers on a comparable basis.

## Relevance for Procurement and Supply Chain

For industrial suppliers and machine builders, transport is not an ancillary cost item but part of the ability to deliver: a delayed or damaged container can bring assembly to a standstill, regardless of how well production ran. Carrier Performance translates this dependency into measurable quantities and makes transport providers tangible for negotiations, tenders and volume decisions. It also supports market analysis in the freight market, because own actuals enable comparison with market prices and benchmark lanes.

## Methods and approach for carrier evaluation

A robust evaluation system follows a clear process: define criteria, establish data sources, weight them, evaluate regularly and consistently translate the results into operational decisions.

### Scorecard model and weighting

In practice, scorecards with five to ten criteria prove effective, weighted according to mode of transport and type of goods. Typical weights are around 30 to 40 per cent delivery reliability, 20 to 30 per cent costs or billing accuracy, and the remainder on damage rate, documentation and communication. It is important that criteria are measurable and can be captured automatically — subjective ratings should account for a maximum of 20 to 30 per cent of the evaluation. Ideally, the criteria are formulated in the same way as a requirements catalogue, so that they can be incorporated directly into tenders and framework agreements.

### Data sources and interfaces

The data basis typically comes from transport management systems, ERP documents, shipment status messages from carriers and forwarding interfaces such as EDI or cXML. Crucial is the alignment with the carrier on target values: when is a collection considered punctual, which tolerance bands apply to delivery dates? Similar to tolerance bands in material delivery schedules, defined tolerances prevent disputes over edge cases. Without cleanly agreed measurement rules, friction losses arise and follow-up bidder questions emerge at the next tender.

- Agree target values per lane and shipment type in writing
- Capture status messages automatically, minimise manual maintenance
- Fix measurement rules and tolerance bands in the contract

### Evaluation cadence and feedback

Well-run companies evaluate monthly and conduct quarterly carrier business reviews. In these meetings, deviations are discussed, countermeasures agreed and carrier improvements documented. The cadence should match the contract term: for three-year framework agreements, at least one formal review per quarter is recommended so that performance issues do not only become visible at contract renewal.

## Key Carrier Performance KPIs

The choice of KPIs depends on mode of transport and business model. The core is a compact set of KPIs that combines data quality and informative value.

### Delivery reliability and transit times

On-Time Delivery (OTD) and On-Time In Full (OTIF) measure the share of shipments that arrived punctually and completely. In industrial environments, target values are frequently 95 to 98 per cent, higher for critical just-in-time lanes. In addition, average and maximum transit times per lane are considered — important, for example, for the ability to commit dates in the sense of Capable to Promise (CTP): only with reliable transit times can sales quote realistic delivery dates.

### **Damage rate, billing and communication**

The damage and loss rate is typically measured as the share of damaged or lost shipments; in practice, values well below one per cent are considered a good benchmark, depending on the type of goods. Billing accuracy checks whether invoices match the agreed tariffs and consignment note data — deviations of a few per cent are common but add up considerably. Communication quality covers response times to enquiries, process evidence and the quality of transport documents including packing list and customs papers.

### **Financial and risk-relevant metrics**

In addition, financial metrics are gaining importance: credit checks of carriers before order allocation and periodically during the contract term protect against failures of pre-carriers. For project loads or high-value goods, a performance bond can secure the transport provider's commitment. The complaint rate — relating to transport and packaging deficiencies including incorrect palletising — also belongs in the scorecard, as it allows direct conclusions about care and process quality.

## **Carrier Performance in tendering and contract management**

Evaluation only has an effect when it is embedded in allocation, contracts and day-to-day operations.

### **Tendering and volume allocation**

Carrier Performance results form the basis for freight tenders: proven carriers receive preferential volumes, weak providers exit or are kept with clearly defined improvement targets. In practice, volume is frequently allocated in primary and back-up allocations, e.g. 80 to 20 per cent. In bid evaluation, the total price including surcharges, demurrage risks and historical billing deviations should be considered — analogous to early-payment discount calculations in goods procurement, a total cost view applies here rather than the pure freight rate.

### **Contractual anchoring**

Scorecard criteria, measurement rules and consequences belong in the contract: SLA tolerances, escalation levels, termination rights in case of persistent underperformance and, where applicable, bonuses or malus points. For large projects or internationalisation, an outsourcing transition can also become relevant, for example when transport services are taken over by a new logistics partner — here, defined performance curves secure the transition. Guidance on the legal design should always be reviewed on a case-by-case basis, e.g. by the legal department or external advisers.

### **Integration into procurement strategy and governance**

Carrier Performance should be integrated into the overarching procurement strategy: which lanes are strategic, which are commodities? A category charter for transport describes objectives, stakeholders and decision paths. Guided buying rules in the procurement system ensure that buyers and business departments only use approved carriers — this prevents maverick buying, where shipments are allocated outside framework agreements and performance data remains incomplete.

## Risks and controls

Without data quality, governance and clear consequences, Carrier Performance fizzle out as a paper exercise. Typical risks can be managed in a targeted manner.

### Data quality and perverse incentives

The most common weak point is the data basis: incorrect date stamps, status messages captured late or inconsistencies between consignment note and ERP distort the evaluation. It is important not to optimise carriers on individual metrics — a carrier that prioritises deadlines may increase damage rates. Combined KPI sets and regular spot checks prevent such perverse incentives.

### Market and dependency risks

Freight markets are cyclical; capacity bottlenecks and price spikes quickly change the negotiating position. Continuous market analysis of alternative carriers and modes of transport reduces dependencies. At least two qualified carriers per critical lane are standard practice. The view within the carrier chain is also worthwhile: with subcontractors without contractual ties, controllability declines — contractual provisions on subcontracting and evidence should therefore be standard.

### Compliance and ethical standards

Transport providers carry reputational risks: violations of driving time regulations, labour standards or environmental requirements can be attributed to the shipper. Compliance requirements, compliance with sanctions lists and, where applicable, evidence of supply chain transparency belong in the evaluation. A functioning whistleblowing system and defined reporting channels for irregularities in the transport process complement the operational controls. Legal obligations in detail must be reviewed individually.

## Current developments: digitalisation, sustainability and resilience

Carrier Performance is evolving from pure schedule measurement to a multidimensional steering instrument.

### Automated data capture and real-time tracking

Telematics, GPS tracking and standardised interfaces make performance data available in real time. Instead of monthly retrospective evaluation, buyers and dispatchers today often detect deviations within hours. This enables proactive management — such as rerouting critical shipments or informing assembly in good time — and shifts carrier evaluation from a reactive report to continuous steering.

### Emissions data and sustainable transport choices

CO emissions per shipment are increasingly becoming a regular criterion in scorecards and tenders. Buyers compare carriers not only by price and dates but also by emission values and fleet data. This changes the procurement strategy: shifts to rail or consolidation concepts become measurable and can be captured in total cost and emissions calculations.

### Resilience and S&OP integration

After the various disruptions of recent years, failure and resilience criteria are moving into focus: how quickly can a carrier scale up capacity, which alternative routes does it offer? In interaction with Sales and Operations Planning, transit time realities flow directly into demand and production planning rather than calculating with blanket lead times. Carrier Performance thus becomes the data basis for delivery

date commitments and for considering ROI in the procurement of transport services.

## Typical metrics

### **On-Time Delivery (OTD): > 95 %**

Usual target for industrial lanes; often higher for just-in-time lanes

### **On-Time In Full (OTIF): > 95 %**

Stricter metric combining punctuality and completeness

### **Damage rate: < 1 %**

Rule of thumb; may differ depending on goods type and packaging standard

### **Billing accuracy: > 98 %**

Share of error-free freight invoices; deviations add up quickly

### **Transport complaint rate: < 2 %**

Based on shipments with complaints, incl. documentation deficiencies

## Practical example

A mid-sized mechanical engineering company with an export share of around 60 per cent had high delay rates on overseas shipments and disputes with forwarders over additional costs. The company introduced a scorecard with six criteria, contractually agreed measurement rules and tolerance bands, and automated data capture via TMS and carrier interfaces.

- Scorecard covering delivery reliability, damage rate, billing accuracy and documentation quality, with monthly evaluation
- Quarterly carrier business reviews with binding improvement measures
- 80/20 volume allocation across two qualified carriers per critical lane
- Integration of transit time data into delivery date commitments and the S&OP process

## Conclusion

Carrier Performance makes the performance of transport providers measurable and thus manageable. The benefit arises not from the scorecard itself but from its consistent linking with allocation, contracts and day-to-day operational steering. Clean data, contractually agreed measurement rules and a fixed review cadence are decisive. Those who take Carrier Performance seriously not only reduce freight costs and complaint rates but also improve delivery date commitments towards customers. The topic therefore belongs firmly in the procurement strategy of industrial buyers — with the same discipline as in goods procurement.

## Frequently asked questions

### **What does Carrier Performance mean?**

Carrier Performance refers to the systematically measured performance of transport providers and freight forwarders. Typical criteria are delivery reliability, transit times, damage rate, billing accuracy and communication quality. The results are usually summarised in scorecards and drive volume allocation, negotiations and contract decisions.

### **Which KPIs belong in a carrier scorecard?**

Five to ten KPIs have proven effective: On-Time Delivery or OTIF, transit times, damage and loss rates, billing accuracy, documentation quality and response times. Depending on requirements, emissions, compliance criteria and complaint rates can be added. It is important that the criteria can be captured automatically and are contractually agreed.

### **How is freight forwarder delivery reliability measured?**

The share of punctual shipments out of all shipments is measured, based on the agreed collection or delivery date. Prerequisites are defined tolerance bands, e.g. a time window of 30 to 60 minutes, and automated status messages from the TMS or carrier systems. The definition should be contractually fixed to avoid disputes.

### **How often should carriers be evaluated?**

Monthly evaluations and quarterly carrier business reviews have become established practice. For critical lanes or during severe market phases, tighter intervals make sense. The cadence should match the contract term so that performance issues become visible early rather than only at renewal.

### **What is the difference between OTD and OTIF?**

On-Time Delivery (OTD) only measures the punctuality of a shipment, regardless of completeness. On-Time In Full (OTIF) combines punctuality with complete, undamaged delivery and is therefore the stricter metric. For industrial supply chains, OTIF is considered more meaningful because partial deliveries are often just as disruptive as delays.

### **How can Carrier Performance be used in tenders?**

Historical performance data serve as the basis for volume allocation: reliable carriers receive preferential volumes, weak providers clear improvement targets or exit. In addition, measurement rules and SLA tolerances can be incorporated directly into tender documents and framework agreements. This makes the evaluation binding and legally usable.