

Second Source Threshold: thresholds for the qualification of second suppliers

The Second Source Threshold denotes the defined threshold at which a second supplier is approved for an item or component – for example a minimum share of the call-off volume, a qualification level or a degree of supply readiness. In practice it serves as a measurable criterion for deciding when a second source genuinely counts as a robust alternative. The Second Source Threshold is therefore a central steering instrument of risk management in procurement.

Key facts

- The Second Source Threshold measurably defines when a second supplier is deemed qualified and ready for use.
- Typical criteria are a minimum share of the call-off volume, a passed suitability assessment and demonstrated incoming quality.
- Common benchmarks in practice: second source with a 10 to 30 per cent volume share and a restart time of four to twelve weeks.
- The threshold is defined individually per item, commodity group or criticality class and reviewed regularly.
- Without a defined threshold, a second source often remains a “paper supplier” that cannot actually deliver in the event of a disruption.
- Introducing second sources involves qualification and changeover costs and should be evaluated via a savings pipeline and risk scenario planning.

Definition: Second Source Threshold

The Second Source Threshold is the threshold defined in advance that determines when a second supplier is deemed a fully-fledged alternative to the primary supplier. It combines qualification criteria such as suitability assessment and supplier capacity review with quantity- or value-related requirements. Only once the threshold is reached is the supply of an item considered dual secured.

Distinction from a pure second source strategy

The second source strategy describes the goal of establishing more than one supplier for critical items. The Second Source Threshold, by contrast, makes it verifiable whether this goal has actually been achieved. It converts a strategic intention into a measurable requirement that can be tracked in supplier evaluations and reporting.

- Strategy: target picture of “two qualified sources per critical item”
- Threshold: measurable condition, e.g. volume share and qualification status
- Reporting: regular checks of which items meet the threshold

Typical components of the threshold

In practice, companies combine several criteria into an overall threshold. Commonly included are a

passed sample approval, a minimum share of the call-off volume, demonstrated incoming quality and a verified capacity reserve. The weighting depends on the criticality of the item and the interchangeability of the supplier.

- Technical qualification: sample testing, sample inspection, approval process
- Quantity criterion: typically a 10–30 % volume share over a defined period
- Process criterion: stored call-off orders, agreed Incoterms, approved price conditions

Methods and approach for defining the threshold

The definition begins with a stock analysis of the procurement portfolio and a market analysis of available alternative suppliers. On this basis, items are classified into criticality classes, each subject to different thresholds. The approach can be well anchored in a category playbook and underpinned with risk scenario planning.

Item assessment and criticality classes

First, it is assessed which items require a second source at all. Classic criteria are supply failure risk, substitutability, value and lead times. This often results in a classification into A, B and C items, with strict thresholds applying to A items and considerably laxer requirements to simple items, for example in the area of free-text ordering.

- Critical: tight threshold, high volume verification, regular requalification
- Standard: moderate threshold, annual volume as the yardstick
- Simple: threshold waived or reduced to listing capability and catalogue structure

Supplier qualification and capacity review

The suitability assessment of the potential second supplier precedes the definition of the threshold. This includes a supplier capacity review, clarification of technical requirements via bidder questions within RFX in procurement, and the review of logistics concepts and Incoterms. Only when manufacturing, capacity and quality are robust can a realistic threshold be agreed.

Volume distribution and ramp-up planning

The quantity-related part of the threshold is often defined as a volume share over a rolling period, for example 20 per cent of annual demand. Alternatively, a qualification proof applies: the second supplier must have processed a defined order quantity defect-free. Both variants ensure that the second supplier masters the process not only in theory but can rely on familiar procedures during the restart phase.

Key KPIs around the Second Source Threshold

Steering takes place via metrics that are evaluated regularly in supplier and risk reporting. Key figures are the share of dual secured items, the actually realised volume shares of second sources and the restart time in the event of a disruption. These KPIs can be directly interlinked with a savings pipeline and missing parts management.

Coverage and volume metrics

The most important metric is the share of critical items meeting the Second Source Threshold. In addition, it is measured how high the second source's actual share of the call-off volume is and whether it remains stable over time. If the share falls permanently below the threshold, there is a risk of “dormant

qualification" – the second source exists on paper but is deactivated.

Quality and responsiveness metrics

In addition to quantity coverage, quality and responsiveness indicators are used. These include the second source's incoming quality, the results of sample inspections and the demonstrable restart time in a simulated failure of the primary supplier. These figures show whether the second source can actually deliver within the safety time buffers in an emergency.

Risks and controls when using thresholds

The greatest risk area is false security: a formally achieved threshold does not guarantee that the second source is capable of delivery in the event of a disruption. Further risks arise from volume shifts at the expense of the primary supplier, higher unit costs and unclear contractual arrangements. Controls and clear governance are therefore indispensable.

False security and dormant qualification

If the second source volume is reduced to a minimum over years, the supplier loses process knowledge and tool availability. Countermeasures include minimum call-offs, periodic sample inspections and a documented missing parts management that is activated in the event of a disruption. A safety time buffer in disposition additionally bridges the restart time.

Economic and contractual risks

Splitting smaller volumes across two sources typically increases unit costs due to duplicate changeovers and lower economies of scale. This should be secured before the decision via risk scenario planning and a profitability assessment. Contractually, framework conditions on minimum order quantities, prices, Incoterms and intellectual property must be clarified; questions of IP transfer, for example for tool-related drawings, should be examined in advance. Tax aspects such as possible self-billing with the second supplier must be assessed case by case.

Controls and regular review

The threshold itself should not be a static value. An annual review based on current stock analysis, market analysis and supplier evaluation keeps the threshold realistic. If lead times, market situation or item criticality change, the threshold must be adjusted.

Current developments and digitalisation

Supply chain disruptions in recent years have significantly increased the importance of measurable second source requirements. Digital risk monitoring systems, structured supplier portals and AI-supported market analyses today make it possible to monitor thresholds more dynamically. At the same time, pressure is growing to build up second sources more quickly so as not to jeopardise the time-to-market of new products.

Dynamic thresholds and early warning systems

Modern approaches link the Second Source Threshold to early warning indicators such as delivery deviations, commodity price indices or geographical risk clusters. If the risk assessment of the primary supplier deteriorates, the required volume share of the second source is automatically increased. In this way, the threshold becomes a dynamic steering instrument rather than a static requirement.

- Automatic alerting when the volume share falls below the threshold
- Linking with stock analysis and min-max control
- Scenario-based adjustment of the threshold per risk constellation

Faster qualification and collaboration

Formats such as a Supplier Innovation Day or structured idea evaluation of supplier solutions accelerate the identification of suitable second sources. In addition, standardised RFX processes and transparent bidder information help reduce the qualification effort. The goal is to significantly shorten the time from market analysis to a reached threshold.

Typical metrics

Share of dual secured items: typically > 80 % for critical items

Proportion of items meeting the Second Source Threshold

Second source volume share: 10–30 %

common benchmark depending on item criticality

Second source incoming quality: > 98 %

delivery reliability and defect-free performance over the review period

Restart time: 4–12 weeks

time until full supply takeover in the event of a disruption

Practical example

A medium-sized mechanical engineering company finds that a critical purchased part is sourced exclusively from a single supplier. The company defines a Second Source Threshold for this item class: the second supplier must undergo a suitability assessment with sample approval, handle at least 15 per cent of the call-off volume over twelve months and demonstrate incoming quality of over 98 per cent. One year after the start of qualification, the primary supplier fails due to a production disruption. The second supplier takes over supply within three weeks, with no production stoppage caused by missing parts.

- Definition of a threshold per criticality class in the category playbook
- Supplier capacity review and sample approval before volume transfer
- Minimum call-off of 15 per cent of annual volume to avoid dormant qualification
- Quarterly reporting of volume share, incoming quality and restart time

Conclusion

The Second Source Threshold makes second source strategies verifiable and prevents false security in the supplier structure. It combines technical qualification, quantity-related requirements and quality evidence into a measurable criterion. The threshold should be defined per criticality class, reviewed regularly and ideally adjusted dynamically to risk situations. Those who steer the threshold consistently shorten restart times, stabilise supply and keep profitability in view. The prerequisite is a sound data basis from stock analysis, supplier evaluation and clear governance.

Frequently asked questions

What does Second Source Threshold mean in procurement?

The Second Source Threshold is the defined threshold at which a second supplier is deemed a fully qualified, ready-to-use alternative. It typically comprises qualification criteria, a minimum share of the call-off volume and quality evidence. Only once the threshold is reached is an item considered dual secured.

How high should the volume share of a second source be?

In practice, typical benchmarks range from 10 to 30 per cent of annual demand, depending on criticality and changeover effort. For highly critical items, companies demand higher shares and stricter quality requirements. A minimum call-off is important so that the second supplier remains process-capable.

What criteria form part of a Second Source Threshold?

Typical criteria include a passed suitability assessment with sample approval, a supplier capacity review, demonstrated incoming quality and a defined volume share over a fixed period. In addition, logistical framework conditions such as Incoterms and stored call-off orders are reviewed. The criteria are weighted individually per item class.

Why is a second source without a threshold often worthless?

Without a defined threshold, the second source often remains a paper supplier that is formally listed but has not received any orders for years. Manufacturing expertise, tooling and process knowledge decay. A threshold with minimum call-offs ensures genuine readiness in the event of a disruption.

What does introducing a second source cost?

Qualification costs arise for samples, inspections and approvals, as well as typically higher unit costs due to smaller lot sizes. These outlays should be weighed against the secured outage risk, for example via risk scenario planning. Often the effort pays for itself through avoided downtime costs and price pressure on the primary supplier.

How often should the Second Source Threshold be reviewed?

Annual review based on current supplier evaluations, market analyses and stock analyses has proven effective. Where known risk situations or supply problems exist, an adjustment within the year is sensible. Dynamic approaches link the threshold to early warning indicators and adjust it automatically.