

Kraljic Matrix: portfolio approach for strategic procurement segmentation

The Kraljic Matrix is a portfolio approach for segmenting procured goods along the dimensions of business impact and supply risk. Popularised in the early 1980s and attributed to Peter Kraljic, it remains the foundation of many sourcing strategies to this day. This article explains its structure, process and criticisms as well as its practical application in industrial procurement.

Key facts

- The Kraljic Matrix assigns each procurement object to one of four quadrants based on business impact and supplier market risk.
- The quadrants – non-critical items, leverage items, strategic items and bottleneck items – each give rise to different procurement strategies.
- Classification requires a clean spend taxonomy and reliable data from the spend analysis.
- The matrix is a starting point, not an endpoint: market and risk situations must be updated regularly.
- For bottleneck and strategic items, partnership, risk mitigation and longlisting take priority; for leverage items, competition and consolidation.
- The Kraljic Matrix is the basis of many supplier segmentation approaches in practice.

Definition: Kraljic Matrix

The Kraljic Matrix is a two-dimensional portfolio model with which procurement organisations classify their procurement objects by importance and risk. One axis represents business impact (share of procurement, influence on value creation and margins), the other supply risk or the complexity of the supplier market. The result is a four-quadrant matrix from which procurement strategies are derived for each item class.

Origin of the model

The concept goes back to a professional article by Peter Kraljic, who in the late 1970s emphasised the strategic dimension of procurement. The core idea: not all items are equally important, and procurement should concentrate its resources where impact potential and risk are greatest. The model contributed significantly to developing procurement from an operational purchasing office into a strategic partner of executive management.

The four quadrants

In detail, the model distinguishes four item classes. Each class requires a different balance of effort, commitment and risk management in procurement, as clarified below.

- Non-critical items: low impact, low risk (standard parts, office supplies)
- Leverage items: high impact, low risk (steel, standard components with many suppliers)
- Bottleneck items: low impact, high risk (special components with few sources)

- Strategic items: high impact and high risk (critical assemblies, key suppliers)

Methods and approach: classification in practice

Creating a robust Kraljic Matrix typically follows a multi-stage process from data preparation through to strategy derivation. It is essential that the assessment is not based purely on gut feeling but on transparent criteria and current market data.

Data basis and spend analysis

The starting point is a spend analysis based on ERP data and a consistent spend taxonomy. Only when material numbers, suppliers and values are properly consolidated can a high classification rate (share of correctly classified purchase volume) be maintained. In practice, a good classification rate typically lies well above 90 per cent; below that, the matrix's statements lose their validity.

Defining assessment criteria

Suitable criteria for business impact include purchase volume, share of material costs, margin relevance and technological importance. Supply risk is typically assessed based on the number of available suppliers, country risk in procurement, switching effort, uniqueness of the specification and supply availability. The criteria are usually scaled per material group, often on a three- to five-point scale.

- Impact: volume, cost relevance, margin and technology relevance
- Risk: number of suppliers, switching costs, country risk, supply stability
- Prioritisation: classify strategically relevant material groups first

Classification and supplier segmentation

The assessment is ideally carried out by an interdisciplinary team from procurement, engineering, quality and sales in order to combine the demand-side and market perspectives. The result is the item matrix, which is then transferred to supplier level: supplier segmentation assigns a care model to each strategic and bottleneck supplier, such as a development partnership or risk mitigation via second sources. The segmentation is translated into concrete projects and deadlines via a sourcing wave plan.

Strategy derivation: what follows from which quadrant?

The real benefit of the Kraljic Matrix lies in the derived logic of action per quadrant. Here, the interplay of competitive pressure, partnership, standardisation and risk management is calibrated differently for each item class.

Leverage items: competition and consolidation

Where impact is high and risk is low, price is what counts. Typical instruments include volume consolidation, RfQs across the supplier longlist, systematic red-line offers as a comparison benchmark and a sourcing strategy with clearly defined sourcing waves. Since the buyer's market position is strong, an annual negotiation cycle with a switching option is often sufficient.

- Volume consolidation across sites and plants
- Regular tenders with recourse to alternative suppliers
- Price indexation rather than long-term fixed prices for raw material procurement

Strategic items: partnership and security

Strategic items require relationship management rather than pure price competition. In practice, procurement establishes long-term contracts here, often based on an MSA (Master Service Agreement), joint forecasting processes within the S&OP cycle and early involvement in developments, for example via a supplier innovation challenge. Risk management instruments such as developing second sources or a supplier energy audit for energy-intensive processes complement the partnership.

- Long-term frame agreements with capacity and continuity commitments
- Joint innovation and cost optimisation with the supplier
- Monitoring of political, financial and energy-related risks

Non-critical and bottleneck items

Non-critical items are kept efficient through standardisation, catalogue solutions and automation of the ordering process; what counts here is low processing effort. Bottleneck items, by contrast, require active supply assurance: stockpiling policies, broad supplier searches, alternative specifications and close schedule control via the goods receipt note (GRN) and the invoice approval workflow.

- Standardisation and bill-of-materials clean-up for C items
- Second and third platforms as well as stocking strategies for bottleneck items
- Consignment agreements as an option for securing critical supply

Key KPIs for implementing the Kraljic Matrix

The matrix only has an effect if its implementation is made measurable. In practice, several key figures have become established with which procurement leadership tracks the maturity and success of the segmentation.

Classification and strategy coverage

The classification rate shows what share of the purchase volume is consistently assigned to the matrix. Strategy coverage measures how much volume actually runs under a defined sourcing strategy. Both figures are typically updated quarterly, often in rhythm with the S&OP cycle.

Supplier and risk key figures

In addition, delivery reliability (OTIF), the single-source share in the strategic area, second-source coverage and the lead time from first sample submission (EMPB) to material approval for new parts are useful. These key figures show whether the risk mitigation measures from the matrix are effective.

- OTIF as a measure of supply quality
- Single-source share as early risk detection
- Lead time of material approval as process speed

Risks and controls: limitations of the matrix

The Kraljic Matrix is a static snapshot in a dynamic market. Without regular updating, clean criteria and integration with operational processes, it risks degenerating into a mere presentation graphic.

Typical implementation errors

Commonly observed are subjective individual assessments without a team process, outdated data stocks and quadrants that are never translated into concrete actions. Confusing the item level with the supplier level also leads to misalignment: a strategic supplier may sit in different quadrants depending

on the item.

- Assessment carried out solely by the clerk rather than the cross-functional team
- No review cycle: classification becomes outdated after one to two years
- Strategies without owners and deadlines in the sourcing wave plan

Controls and governance

The matrix becomes effective through a defined governance framework: fixed review dates, documented assessment criteria, quality gates for supplier selection and switching, and a clear link to project procurement so that new components are correctly classified from the outset. Changes to specification, volume or the market environment should trigger a re-classification.

- Six-monthly matrix review with escalation rules
- Quality gates as control points at supplier handovers
- Linking classification and ERP integration for data consistency

Current developments around the Kraljic Matrix

The classic model has been developed further for years and complemented with digital tools, sustainability criteria and dynamic data sources. The underlying logic of impact and risk remains in place.

Dynamic updating and digital support

Modern approaches update the matrix largely automatically from ERP and market data. Through solid ERP integration, prices, delivery reliability and risk indicators flow in continuously, turning the matrix from an annual snapshot into a real-time steering instrument. Extensions with a third dimension such as sustainability or cost change risk are common.

Sustainability, resilience and compliance

Supply chain due diligence laws and political crises have raised the profile of the risk axis: country risk in procurement, CO2 data and social compliance are moving into the assessment. In practice, many procurement organisations combine Kraljic logic with ESG scoring and regular spot-check programmes for critical suppliers. Legal obligations in detail must be examined on a case-by-case basis.

- ESG and compliance criteria in the risk assessment
- Country risk as a separate assessment block
- Audits and spot checks for critical quadrants

Typical metrics

Classification rate: > 90%

Share of purchase volume with a consistent Kraljic assignment

Strategy coverage: > 85%

Share of volume under a defined sourcing strategy

Single-source share (strategic): < 30%

Guideline value; the lower, the lower the supply risk

OTIF: > 95%

Delivery reliability as an indicator of effective supply assurance

Practical example

A mid-sized mechanical engineering company with a purchase volume of around €120 million classified more than 20,000 material numbers using a spend taxonomy and an interdisciplinary assessment round. The analysis showed that around one fifth of the volume was attributable to strategic items, while more than half of the item stock was classified as non-critical. Based on the matrix, the company consolidated its leverage items into three sourcing waves, developed second sources for two bottleneck components and began a joint value analysis with its most important supplier. Within two years, the single-source share in the strategic area fell noticeably, and negotiation success with leverage items led to single-digit percentage cost savings – a typical but not guaranteed outcome in practice.

- Spend analysis and spend taxonomy established as the data foundation
- Interdisciplinary classification of all A and B material groups
- Sourcing wave plan for leverage items and second sources for bottleneck items
- Supplier segmentation with clear care assignments for strategic suppliers

Conclusion

The Kraljic Matrix remains the foundational model for segmenting the procurement portfolio. Its value arises not from the graphic itself but from the consistent derivation of strategies, the maintenance of the data basis and the regular update cycle. Those who anchor the matrix with a robust spend analysis, clear governance and measurable KPIs steer procurement resources to where impact and risk are greatest. In interplay with supplier segmentation, standardisation and modern risk management, it thus evolves from a classification tool into a steering instrument for the entire procurement strategy. The prerequisite is disciplined review so that market changes do not go unnoticed.

Frequently asked questions

What is the Kraljic Matrix in simple terms?

The Kraljic Matrix positions each purchased item according to two questions: How strongly does it impact the business, and how high is the risk on the supplier market? This yields four quadrants: non-critical items, leverage items, bottleneck items and strategic items. Each quadrant has its own procurement strategy – from efficient catalogue purchasing to supplier partnership.

Which items belong to which Kraljic quadrant?

Non-critical items are standards with low value and many suppliers, such as C-parts and consumables. Leverage items are high-value but easily interchangeable goods such as standard steel or commonly available components. Bottleneck items are low in volume but difficult to source, such as rare special parts; strategic items are both high in value and high in risk, for example critical assemblies or single-source parts.

How do I create a Kraljic Matrix for my company?

Start with a spend analysis and a consistent spend taxonomy to understand volumes and suppliers per material group. Then define rating scales and criteria for business impact and supply risk, and carry out the assessment in a cross-functional team from procurement, engineering and quality. Translate the results into concrete strategies and priorities, ideally into a sourcing wave plan.

What are the criticisms of the Kraljic Matrix?

The main criticisms are the subjectivity of the assessment, the static two-dimensionality and the high maintenance effort for large item portfolios. In addition, the model neglects aspects such as sustainability, innovation potential and the quality of supply relationships unless an additional dimension is added. It also remains ineffective if the quadrants are not translated into actions and responsibilities.

What is the difference between the Kraljic Matrix and supplier segmentation?

The Kraljic Matrix classifies procurement objects or material groups, whereas supplier segmentation assigns concrete suppliers to care classes. In practice, supplier segmentation is often built on the Kraljic Matrix: strategic and bottleneck items lead to the most important supplier classes. The two tools complement each other and should use the same assessment criteria.

How often should the Kraljic Matrix be updated?

In practice, a review cycle of six to twelve months has become established, supplemented by event-driven updates when market or specification changes occur. Strategic and bottleneck items should be reviewed more frequently than non-critical items. It is important that changes are documented and incorporated into the ongoing sourcing strategy.