Return on investment: systematically evaluating the profitability of investments

Return on investment (ROI) is a metric that expresses the ratio of profit or benefit to the invested capital costs. In industrial procurement, it is used to evaluate procurement decisions, supplier investments and process improvements economically and to make them comparable. The article explains calculation methods, typical use cases in B2B procurement as well as risks and control options. Practical examples and KPIs show how procurement professionals can determine and communicate ROI cleanly.

As of October 2026 · amplifa-marketplace.ai/en/glossary/return-on-investment

Key facts at a glance

01 ROI puts the achieved profit or benefit typically in relation to the investment costs and is often expressed as a percentage.

02 In procurement, ROI is often determined via cost savings or avoided risks rather than revenue.

03 A meaningful ROI assessment should always include the observation period and all relevant costs such as maintenance, training and process adjustments.

04 In addition to static ROI, metrics such as payback period, net present value (NPV) and internal rate of return are frequently used in practice.

05 Investments in supplier development, digitalisation and quality assurance can be justified and prioritised using a structured ROI model.

06 A negative or unsatisfactory ROI is not necessarily a reason to reject a project if qualitative objectives such as compliance or supply security apply.

Definition: return on investment

The return on investment describes the return achieved per unit of capital employed. It is one of the best-known profitability metrics and allows a quick comparison of different investments or measures. In

procurement, it serves as a decision-making and justification tool for procurement projects.

Basic formula and calculation

The classic formula is: ROI = (profit or benefit minus costs) divided by the investment costs, multiplied by 100. For cost savings in procurement, the annual saving is often set in relation to the one-off or ongoing effort. A consistent delineation is important: it must be clear which costs are included and over what period the benefit is calculated.

- Benefit (e.g. annual savings) minus effort (e.g. licence and implementation costs)
- Divided by the capital amount invested
- Multiplied by 100 gives the ROI as a percentage

Distinction from other profitability metrics

Static ROI does not account for the time value of money and is therefore intended for short-term evaluations. For multi-year projects, procurement professionals typically add payback period, net present value (NPV) and internal rate of return. These metrics capture cash flows over time and make investments more comparable, for example between a machinery purchase and a software implementation.

Significance for technical procurement

In supplier and manufacturing companies, ROI assessments serve to prioritise procurement initiatives against other internal projects. Whether a supplier audit programme, a new ERP module or supplier development is funded often depends on a robust business case calculation. ROI creates a common, transparent language with management and controlling for this purpose.

Methods and approach for determining ROI in procurement

A robust ROI does not come from a single formula but from a structured approach: identify benefits, capture costs completely, document assumptions and validate the calculation after implementation. This turns an estimate into a manageable controlling instrument.

Systematically capturing types of benefit

Hard benefits include measurable effects such as material cost reductions, lower transport costs, reduced freight costs from a freight cost breakdown or shorter goods-in throughput times. Soft benefits are harder to quantify, such as better delivery reliability, fewer complaints or higher negotiation quality in procurement RFX processes. In practice, it has proven worthwhile to value soft benefits conservatively or to present them as qualitative additional benefits.

Considering total costs over the life cycle

ROI should not rely solely on the purchase price but should use a total cost of ownership approach. This includes implementation effort, training, maintenance, residual risks and costs arising from lead

time variability, which drive buffer stocks. Interests such as compliance with the Supply Chain Due Diligence Act can also generate indirect benefits by avoiding costly reputational and liability damage.

Documenting and validating assumptions

Every ROI calculation rests on assumptions: expected savings rate, implementation timing, baseline data volumes. These assumptions belong in the business case in writing, ideally with a sensitivity check for optimistic and pessimistic scenarios. After completion of the measure, a post-calculation should be carried out comparing achieved against planned values. This increases the credibility of future proposals.

Typical areas of application and investment

ROI calculations accompany numerous decision-making situations in technical procurement. They range from individual measures such as price negotiations to structural investments in supplier relationships and systems.

Supplier management and quality

Investments in a supplier audit programme or in supplier development often pay for themselves through less scrap, lower complaint costs and more stable processes. Expected outcomes include less rework, shorter inspection times in goods-in and better declaration-of-conformity coverage for critical parts. The ROI here arises from avoided failure costs and lower safety stock volumes.

Processes and demand planning

Improvements in material requirements planning, demand specification and capacity planning directly affect capital tied up and service level. A higher on-time in full (OTIF) rate reduces, for example, the need for expensive countermeasures such as express shipping. Switching to evaluated receipt settlement (ERS) can also reduce processing costs and deliberately leverage the cash flow effect of payment terms.

Digitalisation and procurement software

For software investments in procurement, the benefit elements typically consist of process automation, a better data basis for negotiations and faster handling of requirements. In practice, savings from consolidated volumes, shorter throughput times and reduced manual duplicate data entry are included in the calculation. The effort includes licences, integration, training and ongoing maintenance; it is precisely these follow-on costs that are frequently underestimated in practice.

Key KPIs surrounding ROI

ROI is a target metric composed of several upstream and downstream metrics. Those who make these measurable can demonstrate and continuously manage the effects of procurement measures.

Metrics for the benefit base

The most important upstream metrics include savings against baseline prices, working capital effects and scrap or complaint rates. The goods/procurement cost ratio and disbursements for indirect procurement also provide insight. To avoid distortions, the baseline should be cleanly recorded before the project starts and agreed with controlling.

Metrics for the cost and risk side

On the cost side, in addition to investment costs, ongoing operating expenses and indirect effects such as transport costs, warehousing costs from increased minimum stock levels and costs from lead time variability count. For supplier performance, the on-time in full (OTIF) metric provides valuable indications of quality and reliability effects. Those who buy better figures only through more buffer stocks waste cost of capital and thus ROI.

Time-related supplementary metrics

In addition to static ROI, the payback period should be stated, i.e. the period over which the investment is recouped. For projects spanning several years, net present value and internal rate of round complete the picture. As a rule of thumb in practice: the longer the horizon and the more uncertain the benefit assumptions, the more important scenario calculations and interim reviews become, for example in a quarterly business review (QBR) with strategic suppliers.

Risks and controls in ROI assessments

ROI figures are only as good as their assumptions. Typical sources of error are double counting of benefits, overly optimistic baselines and ignored follow-on costs. With clear rules and controls, these pitfalls can be avoided.

Typical calculation errors and distortions

Benefits are often counted twice when several departments claim the same saving for themselves. Missing residual costs, for example for maintenance or process upkeep, and unrealistic implementation dates are equally common. The cash flow effect of payment terms must also not be presented as a return if it only represents a liquidity shift rather than genuine savings. Clear coordination with controlling provides a remedy here.

Organisational control mechanisms

Defined approval thresholds above which business cases are reviewed by controlling have proven effective. After project completion, a mandatory post-calculation should take place, ideally in a review such as a quarterly business review (QBR) with the stakeholders. Those who set realistic ROI targets also avoid incentive distortions in which project objectives are embellished for the sake of attractive figures.

Legal and contractual aspects

For investments involving suppliers, such as tooling or equipment investments, contract clauses should clearly regulate how residual values, depreciation and early exit are handled. Even in negotiation procedures and framework agreements, clean documentation of the economic basis can help avoid later disputes. This does not replace legal advice; the specific design should be examined on a case-by-case basis.

Current developments and outlook

The ROI perspective in procurement is increasingly shifting from pure price savings towards resilience, sustainability and data quality. This broadens the concept of benefit and places new demands on measurability.

Valuing resilience and sustainability

Measures to secure the supply chain, such as second sources or longer contracts, do not bring directly measurable savings but avoided failure costs. The same applies to investments to comply with the Supply Chain Due Diligence Act and to sustainability requirements, which are increasingly becoming part of customer requirements. In practice, it is becoming established to include such benefits in the ROI calculation as avoided risk costs with estimated values and to present them transparently.

Data-driven ROI management

With a better data basis from ERP and procurement systems, benefit assumptions can be made more precise and tracked continuously. Metrics such as goods-in throughput time, lead time variability or OTIF become available more quickly and at a more granular level. This shortens feedback loops and turns ROI into an ongoing steering instrument rather than a one-off project justification.

Integration into supplier partnerships

ROI thinking is increasingly finding its way into joint projects with suppliers, for example in low-volume production, joint cost engineering or capacity planning. Structured formats such as the quarterly business review (QBR) allow benefits and effort to be evaluated jointly. This fosters partnerships based on comprehensible economic facts rather than pure price negotiations.

Typical metrics

Metric	Typical value
ROI	> 15 % p. a. (typical guideline for attractive projects) *comparison with internal cost of capital and alternative projects required*

Payback period	typically 12–36 months *shorter periods generally mean lower risk*
Procurement savings (baseline)	2–8 % of the addressed volume *usual guideline for structured optimisation projects*
On-Time In Full (OTIF)	> 95 % *high delivery reliability reduces buffer stocks and improves ROI*

Practical example

A mid-sized mechanical engineering company with around 400 employees evaluated the introduction of a supplier rating system including a structured supplier audit programme. Before the launch, lead time variability for central components was high, and goods-in throughput times repeatedly caused bottlenecks in assembly. The business case calculated savings in express freight, reduced scrap costs and lower buffer stocks over three years against licence, training and audit costs. The calculated ROI was in the double-digit percentage range per year, with a payback period of around 18 months.

- Baseline data on OTIF, lead time variability and scrap recorded before the start and agreed with controlling
- Benefits valued conservatively: only hard savings included in the ROI, qualitative effects documented as additional benefits
- Interim review after 12 months in a quarterly business review (QBR), savings targets adjusted to real data
- Result confirmed in the post-calculation; approach established as the standard for future procurement projects

Conclusion

Return on investment is a central instrument for technical procurement professionals to justify and prioritise measures economically. What matters is less the formula than the discipline behind it: complete costs, conservative benefit assumptions and a clean baseline. Supplementary metrics such as payback period, OTIF or net present value make the picture more realistic. Those who make post-calculations mandatory gain long-term credibility with management and controlling. In this way, ROI becomes a genuine steering metric in procurement rather than a mere justification figure.

Frequently asked questions

? How do you calculate the return on investment (ROI)?

The basic formula is ROI = (benefit minus costs) divided by the investment costs, multiplied by 100. In procurement, the annual savings often take the place of profit in the numerator. It is important to include all follow-on costs such as maintenance and training and to clearly define the observation

period.

? From what level is an ROI considered good?

There is no universal threshold; typically the ROI must exceed the internal cost of capital or alternative investment opportunities. In practice, a double-digit percentage per year is often considered attractive. What matters is the comparison with other internal projects and with the risk of the investment.

? What is the difference between ROI and payback period?

ROI shows profitability as a ratio of benefit to costs, usually expressed as a percentage. The payback period indicates after how many months or years the investment has been recouped through the savings. The two metrics complement each other: ROI measures the return, while the payback period measures the risk over time.

? How do you calculate the ROI in procurement of C-parts or software?

For C-parts, the savings from consolidation, price negotiations or lower process costs are typically weighed against the implementation effort. For software, licence costs, integration, training and ongoing maintenance are included in the effort. In both cases, a total cost of ownership assessment is recommended rather than a pure price comparison.

? Which mistakes should be avoided in ROI calculations?

Common mistakes include double counting of benefits, missing follow-on costs and overly optimistic baselines. Liquidity effects such as extended payment terms should also not be counted as genuine savings. Clear documentation of assumptions and a post-calculation after project completion minimise these risks.

Find the right suppliers on Amplifa

Verified industrial suppliers in Germany, Austria and Switzerland. Describe your requirement and receive comparable offers.

amplifa-marketplace.ai