

Supplier Co-Innovation: Developing jointly with suppliers

Supplier Co-Innovation describes the systematic collaboration between a company and its suppliers to jointly shape new products, processes or technologies as early as the development phase. Instead of involving suppliers only after the design is complete, as pure contract manufacturers, their technology, material and manufacturing competencies are actively integrated into product development. For technical buyers, the topic is becoming increasingly strategic, because competitive advantages are frequently created through material innovations, manufacturing efficiency and shorter time-to-market. Procurement takes on a central brokering role: it identifies suitable partners, structures the collaboration and safeguards both the commercial and the legal framework.

Key facts

- Supplier Co-Innovation involves suppliers as early as the development phase, not only when tendering finished drawings.
- Typical objectives are shorter development times, lower functional costs, improved manufacturability and material innovations.
- Protecting intellectual property requires clear contractual provisions on rights and confidentiality.
- The buyer acts as the link between development, quality management and the supplier.
- Classic tendering instruments such as the request for quotation only come into play after the innovation process or accompany it.
- Success is measured using time, cost and quality KPIs as well as the supplier's innovation contribution.

Definition: Supplier Co-Innovation

Supplier Co-Innovation describes the early, collaborative cooperation with suppliers on innovation projects – from new component concepts and material alternatives to process improvements. It differs from classic supplier evaluation and transaction processing in that the supplier does not merely manufacture but actively develops.

Distinction from classic procurement

In classic procurement, the customer defines the deliverable in full in the requirement specification, and the supplier quotes via a request for quotation based on this catalogue of requirements. In co-innovation, by contrast, the customer defines functions, requirements and target costs, while the supplier contributes technical solutions. The transition from innovation to tendering takes place via defined milestones, often beginning with a test order referred to as Proof of Concept procurement.

Forms of collaboration

In practice, several intensity levels have become established. They range from simple expert workshops

and design-to-cost projects through to long-term development partnerships with contractually agreed exclusivity. The appropriate form depends on the strategic relevance of the category, the supplier's technological capability and the degree of trust.

Role of procurement

Procurement coordinates the interfaces: it selects candidates from the Approved Vendor List (AVL) and beyond, facilitates the collaboration, negotiates terms and conditions and ensures that results are transferred into the regular ordering process. Without procurement-side steering, there is a risk of technical success without commercial utilisation.

Methods and approach of supplier co-innovation

Successful co-innovation follows a structured process with clear target definition, partner selection, iterative development and transfer to series production. Ad-hoc projects without methodology typically fizzle out after the first test phase.

Partner selection and potential analysis

The starting point is the systematic identification of suppliers with relevant technologies. Sources include the company's own bidder register, supplier innovation days, trade fairs and existing performance data such as Quality (PPM) and delivery reliability. Assessment criteria are technological competence, development capacity, financial stability (keyword: supplier financial risk) and the willingness to share proprietary know-how.

Working agreement and legal framework

A non-disclosure agreement precedes the first workshop. For the project phase, contractual questions are then settled: who owns which results, whether exclusive rights or rights of first refusal are agreed, and how third-party rights are handled. Such provisions must be negotiated individually and should be legally reviewed. In addition, terms and conditions, Incoterms and the requirements of change management are defined so that later design changes are handled cleanly.

Iterative development and transfer to series production

The actual development process runs in short loops: concept design, prototype build, testing, adjustment. Procurement accompanies the process with project controlling and schedule monitoring. Once a result is ready for series production, commercialisation follows – typically via a structured tender or directly via a call-off order with agreed framework terms. Parameter maintenance (MRP) in the ERP system ensures that bills of materials, qualifications and alternative suppliers are consistently maintained.

Key KPIs for Supplier Co-Innovation

Like every procurement instrument, co-innovation must be measurable. The KPIs combine classic procurement metrics with innovation-specific values and answer the question of whether the effort is economically worthwhile.

Time and cost KPIs

Key metrics are the reduction in development time compared with projects without supplier involvement and the realisation of cost savings. The Purchase Price Variance (PPV) between standard and actual

prices of new parts is frequently measured; negative variances show whether target costs from co-innovation projects are actually achieved. Functional cost analysis helps to demonstrate savings at component and function level.

Quality and delivery KPIs

New solutions must prove their production readiness. Proven measures include Quality (PPM) in the first series months, the cost of poor quality (COPQ) rate for newly developed parts and the complaint management KPI first-time-fix rate. The fill rate of the new supplier during the ramp-up phase is also typically monitored.

Innovation and portfolio KPIs

The following steering metrics have become established: the number of ongoing co-innovation projects, the share of procurement volume with innovation-active suppliers, and the conversion rate, i.e. the share of projects that actually result in series orders. These figures prevent co-innovation from becoming a showcase activity and give heads of procurement arguments for resource allocation.

Risks and controls in supplier co-innovation

Co-innovation transfers knowledge to external partners and creates dependencies. Without targeted controls, intellectual property can migrate, switching costs can grow, or projects can become tied to unreliable partners.

Intellectual property and loss of know-how

The single biggest factor is the delineation of intellectual property. Who continues the development, who may use the results with other customers, and what restrictions apply after the project ends? Such points must be fixed in the contract and not clarified only in the event of a dispute. In addition, careful selection is recommended, because a supplier that simultaneously develops for competitors may present conflicts of interest.

Dependency and switching costs

Those who develop jointly often become tied to the partner, because planned processes are based on the partner's machines and tools. A second source in critical areas counteracts this: for critical parts, an alternative supplier is qualified in parallel and documented in the Approved Vendor List (AVL). For tooling and prototype orders, instruments such as a penalty clause for late delivery or a bank guarantee for advance payments are helpful.

Financial and operational controls

During the project phase, a supplier may work in advance of payment; in the event of financial difficulties, the project risks being abandoned. Regular financial audits, milestone acceptances before advance payments and a clear complaint management process for prototype quality have proven effective. Ongoing operational integration – buffer stock for ramp-up phases, a clear ordering process, regulated bidder communication – is also part of the control instruments. When later tendering additional quantities, the bidder register can clarify who holds relevant development results.

Current developments in supplier co-innovation

Several trends are changing practice: sustainability requirements, the digitalisation of collaboration and

tightened supply chain due diligence requirements increase complexity, but also facilitate coordination.

Sustainability as a co-innovation topic

Recyclable materials, low-CO2 pre-products and circular component concepts are increasingly developed jointly with suppliers. Methods such as the Product Environmental Footprint (PEF) provide comparable metrics for evaluating material alternatives. The buyer thus becomes a driver of material innovation, translating market requirements and regulations into technical targets.

Digitalisation of collaboration

Shared development environments, digital data exchange formats and structured supplier portals significantly reduce coordination effort. However, one point is important until these reach full practical maturity: data exchange must be fed into the regular systems – ERP, change management, quality data – both within the company and at the supplier, so that no isolated island projects arise.

Buyers as innovation managers

The role profile is shifting: buyers are increasingly expected to be technologically proficient, to master value analysis methods and to systematically unlock supplier potential. Project procurement and classic product procurement are increasingly merging into an integrated responsibility for cost, technology and risk management across the entire life cycle.

Typical metrics

Reduction in development time: typically 10–30 %

Compared with projects without supplier involvement

Conversion rate: typically > 50 %

Share of co-innovation projects that result in series orders

Quality (PPM) in ramp-up phase: typically < 500 PPM

Defect rate of newly developed parts in the first series months

Purchase Price Variance (PPV): typically ≤ 0 %

Target costs from co-innovation projects should not be exceeded

Practical example

A medium-sized mechanical engineering company wanted to reduce the costs of its in-house drive element and improve delivery reliability. The head of procurement identified two specialist foundries with relevant manufacturing processes in his bidder register and invited both to a design-to-cost workshop. Following a non-disclosure agreement and a test order referred to as Proof of Concept procurement placed with one of the manufacturers, an optimised component with a thinner wall thickness and better manufacturing tolerances was developed in three iterations.

- Selection of partners via the bidder register and quality data (Quality PPM) rather than purely via price tenders
- Contractual regulation of intellectual property and exclusivity before project start, alignment of terms and conditions
- Series preparation with a second source in the Approved Vendor List (AVL) to reduce supplier financial risk
- Transfer into series call-offs with parameter maintenance (MRP) and ongoing PPV monitoring

against target costs

Conclusion

Supplier Co-Innovation is more than a well-cultivated supplier relationship: it is a structured procurement instrument with measurable objectives, clear contractual rules and defined transitions into series production. The advantage lies in utilising supplier competencies where they originate – in development. The drawback is increased demands on legal matters, dependency management and project steering. Those who build these controls systematically can shorten development times, reduce costs and build a sustainable procurement portfolio. For technical buyers, co-innovation is thus becoming a key competence of the next decade.

Frequently asked questions

What does Supplier Co-Innovation mean?

Supplier Co-Innovation refers to the early, structured collaboration with suppliers on product or process innovations. The supplier does not merely manufacture to specification but actively contributes technical solutions. The buyer facilitates the collaboration, secures the contractual terms and transfers the results into the ordering process.

What are the benefits of collaborating with suppliers on innovations?

Typical benefits include shorter development times, lower functional costs through manufacturing optimisation, better material selection and higher production readiness. In addition, a closer partnership is created, which pays off in delivery reliability and quality. A prerequisite is a clear contractual regulation of intellectual property and dependencies.

How do you start a co-innovation project with a supplier?

It starts with a potential analysis: which components or functions offer relevant improvement potential? This is followed by partner selection from the bidder register or the Approved Vendor List, a non-disclosure agreement and a defined pilot project, often in the form of a Proof of Concept procurement. Only after a successful phase are the results transferred into regular framework agreements.

What are the risks of Supplier Co-Innovation?

The main risks are loss of know-how, growing switching costs due to the depth of the collaboration and the partner's financial risk of default. These can be controlled through non-disclosure agreements, defined ownership rules, a second source and milestone acceptances before advance payments. Careful selection based on financial stability also reduces the risk.

How do you measure the success of supplier co-innovation?

Typical KPIs are reduction in development time, realised cost savings (often measured via Purchase Price Variance), Quality PPM during series ramp-up and the conversion rate of projects into series orders. In addition, the share of innovation-active suppliers in procurement volume and the cost of poor quality (COPQ) of new parts are monitored.

What role does procurement play in co-innovation?

Procurement acts as the link between development, quality management and the supplier. It identifies partners, negotiates contractual frameworks such as terms and conditions and intellectual property,

manages the project and transfers the results into tenders and call-offs. Without this commercial steering, there is a risk of technical success without commercial benefit.