

Co-Development: Joint product development with suppliers as a strategic lever

Co-Development refers to the early, contractually regulated collaboration between a company and its suppliers in the development of products, components or manufacturing processes. The supplier contributes not only production capacity but also its own technology and process know-how during the design and development phase. For procurement organisations, co-development thus becomes a strategic instrument that can significantly influence time to market, cost structure and quality.

Key facts

- Co-Development shifts supplier competence into the early phase of product development, where typically the majority of later lifecycle costs are determined.
- Successful cooperation requires clear contractual provisions on intellectual property, confidentiality and usage rights.
- Supplier selection is often carried out via a structured capability assessment rather than classic tenders.
- Key criteria for partner selection are technological competence, willingness to innovate and long-term supply capability.
- Contractual instruments such as a benchmarking clause safeguard the competitiveness of the results over the term.
- Co-Development is closely related to co-creation with suppliers, but starts more strongly from a concrete product or process objective.

Definition: what does co-development mean in procurement?

Co-Development is the contractually agreed, collaborative development of products, components or processes between a buyer and a supplier. Both parties invest resources and share development tasks, and often development risks and returns as well.

Distinction from classic contract manufacturing

In classic contract manufacturing, the customer supplies finished designs and the supplier manufactures to drawing. In co-development, the supplier actively contributes to the design – for example in design-for-manufacture, tooling design or material selection. Procurement here takes on not only purchasing tasks but also moderates the interfaces between design, quality assurance and the supplier.

Distinction from co-creation with suppliers

Co-creation with suppliers is the broader term: it also covers innovation beyond concrete projects, such as joint technology roadmaps. Co-development is more project-based and goal-oriented, frequently tied to a concrete development trigger such as a new product or a redesign. In practice, the two approaches often converge.

Methods and approach in the co-development process

A structured approach is crucial, because development projects incur high upfront costs and errors take effect late and expensively. A phased process with defined milestones and approval points has proven its worth.

Supplier selection and capability assessment

Rather than a pure price tender, the focus is on a systematic capability assessment: technological capabilities, development resources, certifications, reference projects and financial stability. This is frequently supplemented by a competitive dialogue in which several candidates present solution concepts. Early maintenance of supplier master data is also important, so that technical interfaces and contacts are properly documented.

Phase model and milestones

A structure of concept phase, detailed development, sample construction and production ramp-up has proven effective. At each milestone, technical approvals, cost status and schedule forecasts are reviewed. Material classification and specifications are defined early so that later changes remain manageable. For critical components, a bottleneck analysis is recommended in order to identify production constraints in advance.

Interface management and information exchange

Efficient co-development thrives on controlled data exchange: CAD data, bills of materials, test plans and forecast data. Poor forecast quality – visible in the forecast error – jeopardises capacity planning and sample stocking at the supplier. Regular review meetings and a defined change management process keep the development status and expectations in sync.

Key KPIs for steering co-development projects

Co-development projects can be steered using classic project metrics and procurement-specific indicators. What is decisive is that both partners accept and transparently report the same measurement variables.

Project and quality metrics

Typical indicators are adherence to milestone deadlines, the number of change orders per phase and the first delivery quality of samples. On-time delivery of sample parts should also be measured; in practice, delivery times for development samples vary considerably more than in volume production, so a documented delivery time variability improves planning.

Economic metrics

Relevant are development-accompanying target costs, the cost deviation from the original business case and the achievement of agreed unit target costs in the volume production phase. Where commodity price risks are involved, transparency on the material price index and the principles of price formation can be agreed from the outset. A benchmarking clause safeguards the competitiveness of prices over the term.

Risks and contractual controls in co-development

Co-development entails considerable risks: dependency on the development partner, loss of knowledge and disputes over intellectual property. Sound contracts and ongoing control mechanisms are therefore indispensable.

Intellectual property and confidentiality

Central are clear agreements on usage rights to jointly developed results: who may use, further develop and supply results to other customers? Confidentiality agreements should cover project documentation, samples and test reports. For physical samples and tooling, ownership arrangements – if necessary with retention of title until full payment – must be clearly regulated.

Dependency and exit scenarios

Those who develop jointly become dependent: knowledge, tools and standard parts lie with the partner. Contracts should therefore provide for second-source options, tool transfer rights and transition arrangements. An escalation clause defines the path to take in the event of disagreement before the project is blocked. The return of defective samples must be clearly regulated, including cost responsibility.

Price and commodity risks during the development phase

Development projects frequently last several years; between sample costing and production ramp-up, material markets can move considerably. Where commodity price volatility is high, indexed adjustment mechanisms, defined material shares and agreements on hedging responsibility help. Provisions on safety stock for critical components during the production ramp-up also belong in the agreement.

Current developments: co-development in transition

Co-development is gaining in importance because products are becoming more complex and suppliers are increasingly taking on system competence. At the same time, digitalisation and regulatory requirements are changing the collaboration.

Digital data exchange and platform integration

Digital development environments enable joint work on CAD models and simulated manufacturing processes. Automated supply processes with the Advance Shipping Notice (ASN) and batch number tracking create traceability from the production ramp-up onwards, which is increasingly planned into the development phase already. Clean data cleansing of item master data before the project starts prevents later interface errors.

Sustainability and regulation

Material selection, recyclability and supply chain documentation are moving into development projects at an early stage. Co-development partners are frequently used as a source for alternative materials and more energy-efficient processes. Logistics design – for example, the transport arrangement under the CPT clause or alternative Incoterms – should be considered early, as it affects costs and the carbon footprint.

Strategic realignment: rethinking make or buy

Co-development is often in tension with insourcing considerations: which competences does the

company want to build in-house, and which to outsource? A deliberate decision per component and process family – supplemented by clean order management, for example a clear PO policy – prevents development partnerships and in-house manufacturing strategies from contradicting each other. Operational safeguarding of day-to-day business, for instance through S&OE processes, frees project teams up for development work.

Typical metrics

Milestone adherence: > 90%

Proportion of project milestones achieved on time; in practice the most common steering indicator for development projects.

Target cost achievement: $\pm 5\%$

Deviation of achieved unit costs from the agreed target cost framework during production ramp-up.

First delivery quality of samples: > 95%

Proportion of defect-free sample parts at initial acceptance; early return and failure analysis are mandatory.

Change orders per phase: decreasing per phase

A falling number of changes indicates a stabilising development; an increase signals specification gaps.

Practical example: co-development of a support structure in mechanical engineering

A medium-sized mechanical engineering company is developing a new machine frame and involves a steel fabricator at an early stage. Instead of finished drawings, the supplier receives load cases and interfaces; it designs profile beams, welding sequences and bending processes itself. The partner was selected after a structured capability assessment through a competitive dialogue with two candidates.

- Joint target cost agreement with a benchmarking clause for the volume production phase
- Unambiguous regulation of usage rights and ownership of tools and sample parts
- Milestone-based sample acceptance with documented return of defective parts
- Safety stock agreement and chain of contacts for the production ramp-up phase

Conclusion

Co-development is far more than a procurement variant: it is a strategic instrument for actively shaping technology transfer, cost structure and time to market. The prerequisites are carefully selected partners, a phased approach and contracts that reliably regulate intellectual property, prices and exit scenarios. Procurement organisations that accompany development projects with measurable KPIs and clear escalation routes reduce dependency risks and increase their suppliers' contribution to innovation. Those who operate co-development professionally transform procurement from a purchasing function into a value-shaping function.

Frequently asked questions

What is co-development in procurement?

Co-Development is the contractually regulated joint development of products, components or processes between a buyer and a supplier. The supplier contributes its own technology and process know-how, shares development tasks and often risks as well. Procurement manages partner selection, the

contractual framework and interfaces.

What advantages does co-development offer compared with classic procurement?

The main benefits are faster development cycles, design-for-manufacture solutions and usually lower lifecycle costs, because optimisation starts early. In addition, a deep mutual process understanding develops, which stabilises volume supply. The disadvantage is greater dependence on the partner.

How do you select the right supplier for co-development?

A structured capability assessment has proven effective, using criteria such as technological competence, development resources, certifications and financial stability. This is frequently supplemented by a competitive dialogue in which several bidders present solution concepts. Reference projects and a small-scale pilot development reduce selection risk.

How is intellectual property regulated in co-development?

The contract must clearly distinguish which prior knowledge each party contributes and who owns the newly created results. Usage rights, further development rights and supply rights to third-party customers are agreed unambiguously. In addition, confidentiality agreements protect project documentation and samples.

What risks does co-development involve and how can they be controlled?

The key risks are supplier dependency, loss of knowledge and price shifts over long development periods. Controls include second-source options, tool transfer rights, benchmarking clauses to ensure price competitiveness and clearly defined escalation routes. The return of defective samples should also be covered contractually.

What does co-development cost and who bears the costs?

In practice, both partners share development costs according to the distribution of benefits: often the customer bears tooling and sample costs, while the supplier covers process and design effort. The allocation should be recorded transparently in the contract and in the business case. Graduated reimbursements upon reaching volume production levels are also customary in the market.