

Innovation Funnel: Structured control of idea selection in the procurement process

The innovation funnel describes the multi-stage filtering process by which companies select a manageable number of marketable innovations from a large volume of ideas, concepts and technological approaches. In industrial procurement, the principle transfers to the systematic evaluation of supplier ideas, material alternatives and technology proposals before resources are committed to prototypes or series development. A well-managed funnel prevents time and budget from flowing into projects with little promise and makes innovation decisions traceable.

Key facts

- The innovation funnel progressively narrows a large number of ideas down to a few prioritised projects via defined gates.
- In procurement, it primarily serves to evaluate supplier innovations, material substitutions and technological alternatives.
- Typical stages are idea collection, rough screening, business case, prototyping and the implementation decision.
- In practice, significantly more ideas often arise in the first phase than can be carried; the funnel acts as a resource protection mechanism.
- Key criteria are technical potential, cost impact, risk, strategic fit and implementability.
- Stage-gate processes and portfolio analyses are proven steering instruments for the funnel.

Definition: Innovation Funnel

The innovation funnel is a conceptual model that depicts the path from idea to implementation as a progressive narrowing. Each stage filters according to defined criteria, so that in the end only economically and technically viable concepts pass into the next phase. The model makes transparent which ideas have passed which evaluation benchmarks and why decisions were taken as they were.

Origin and Basic Principle

The model originates from innovation management and has been applied in product development for decades. The basic principle is the coupling of phases and decision points: each phase produces defined deliverables on the basis of which a decision-making body decides whether to proceed. This prevents individual interests or gut feeling from determining the allocation of resources.

Transfer to Procurement

In the procurement context, the funnel sorts proposals from suppliers, ideas from idea workshops with A-suppliers, material alternatives and technology approaches. Especially in prototype procurement, an upstream screening pays off: only concepts with a convincing business case reach the costly sample production. The link to the requirements specification ensures that technical requirements are verifiable from the outset.

Methods and Approach in the Innovation Funnel

A functioning funnel requires clear phases, uniform evaluation schemes and responsible decision-makers. Methodologically, the combination of simple point-based scoring in early screening and detailed economic appraisal in later stages has proven effective.

Phases and Gates

A usual structure comprises four to five stages: idea collection, rough screening, business case development, prototyping and implementation approval. At each gate, a committee from procurement, engineering and, where applicable, quality reviews the case against predefined criteria. Rejected ideas are documented with reasons in order to enable learning and avoid duplicate proposals.

Evaluation Criteria and Scoring

Common criteria are the level of technical feasibility, savings potential, implementation timeframe, risk, strategic fit with the product roadmap and dependence on the supplier. A procurement portfolio analysis can position projects by benefit and implementation effort and visually support prioritisation. A fixed weighting of the criteria is important so that evaluations remain comparable across projects.

Involving Suppliers

Supplier ideas work best via structured channels, such as innovation workshops, supplier days or early supplier involvement in new developments. Prerequisites are a sound supplier evaluation and, where applicable, a supplier credit check before sensitive development data is shared. Contracts should reliably regulate confidentiality and the question of usage rights to supplier developments.

Key KPIs and Success Measurement

Without metrics, the funnel remains an organised collection of ideas. Typically, both throughput figures and the economic outcomes of implemented projects are measured.

Process Metrics

Typical metrics are the number of ideas submitted per period, the pass rate per stage, the processing time between gates and the attrition rate with its breakdown of reasons. A very high throughput without narrowing indicates missing screening; a very low one can indicate poor idea quality or unclear criteria.

Economic Impact Metrics

The focus is on realised savings, avoided costs, shortened development time and quality improvements. To build conviction, savings should be verifiable, for example through cost driver analysis and comparison against the original calculation. The reusability of the results achieved across projects is also a relevant evaluation factor.

Risks and Controls in the Funnel Process

The innovation funnel harbours typical pitfalls: favoured projects that skip all criteria, overloaded committees that formalise the gates, and ideas that starve within the evaluation structure. Clear controls and defined escalation paths counteract this.

Typical Weak Points

Frequently observed are skipped gates under time pressure, retrospective demands for documentation as a delay tactic and decision papers that leave risks unquantified. An overly close coupling to existing supplier relationships can also systematically disadvantage new approaches. Finally, there is the risk of funnel inflation: too many projects open in parallel tie up resources without results.

Control and Steering Mechanisms

Effective measures include fixed gate dates, a reserve budget for short-term priorities, documented termination criteria and a periodic review of the pipeline. After contract award, classic steering instruments such as on-time in full (OTIF) for delivery reliability and material compliance for adherence to requirements take over operational control. For price components such as an alloy surcharge or material indexation, a transparent mechanism for renegotiation is recommended.

Risk Management in Early Phases

Early exit points also serve risk assessment: supplier capacity checks, audit rights in the frame agreement and a solid supplier credit check minimise default risks before investments flow. Where significant advance payments are involved, an advance payment with safeguarding mechanisms should be considered. Material approval processes should already be set up during the prototype phase in order to reduce later changeover effort.

Current Developments around the Innovation Funnel

The funnel is increasingly migrating into digital tools and opening up to broader sources of ideas. At the same time, evaluation priorities are shifting towards sustainability and supply chain security.

Digitalisation of the Funnel

Dedicated idea databases, workflow tools and AI-supported pre-screening are gradually replacing lists and spreadsheets. They improve traceability, reduce duplicate work and enable dashboards on pipeline utilisation. In electronic procurement processes, certification statuses such as AEO (Authorised Economic Operator) can also be systematically stored.

Sustainability and Resilience as Filter Criteria

CO2 intensity, recyclability and security of supply are gaining importance as evaluation criteria alongside cost and technology. Regional sourcing and supplier consolidation to bundle innovation partner services are gaining weight. Delivery concepts such as just-in-time or consignment models also influence which innovations can be implemented at all.

Typical metrics

Pass rate per stage: typically 20–50 %

Share of ideas that pass a gate; strongly industry-dependent

Gate cycle time: commonly 4–12 weeks

Time between two gates; long durations indicate committee bottlenecks

Realised savings: project-dependent, often five-figure amounts per project

Evidence e.g. via cost driver analysis

Revenue share of new solutions: to be defined individually

Share of innovative products/materials in the product range

Practical example

A medium-sized mechanical engineering company faced more than a hundred improvement suggestions per year from procurement, production and its supplier network, without any prioritisation taking place. The introduction of a four-stage innovation funnel with fixed gate dates and uniform scoring brought clarity within a year: of around 100 ideas, typically fewer than ten reached the implementation phase, with a significantly higher success rate and verifiable savings.

- Introduction of a scoring model with fixed criteria (benefit, risk, effort, strategic fit)
- Quarterly gates with representatives from procurement, engineering and quality
- Linking prototype procurement to the funnel: only gated projects receive sample budgets
- Handover of implemented projects to classic steering via supplier evaluation and OTIF measurement

Conclusion

The innovation funnel gives innovation processes in procurement structure, transparency and priority. It protects resources, makes decisions traceable and prevents promising ideas from being lost in uncoordinated individual activities. Prerequisites are binding gates, uniform evaluation criteria and a committee with decision-making authority. Those who consistently maintain the funnel combine innovative strength with procurement-side steering – from the idea through material approval to series delivery.

Frequently asked questions

What is an innovation funnel?

An innovation funnel is a model that filters ideas step by step through evaluation stages until only viable concepts are implemented. In procurement, it sorts supplier proposals, material alternatives and technology approaches. The aim is a transparent and resource-efficient selection of innovation projects.

What stages does an innovation funnel have?

Four to five stages are common: idea collection, rough screening, business case, prototyping and implementation approval. Decision points (gates) lie between the stages, where a committee decides whether ideas proceed. Rejected ideas are documented together with the reasons.

How does procurement use the innovation funnel in practice?

Procurement uses it to systematically evaluate supplier ideas, substitution proposals and technology innovations. Criteria include savings potential, risk, feasibility and strategic fit. Once selected, classic steps follow, such as prototype procurement and material approval.

Which KPIs are suitable for the innovation funnel?

At process level, throughput, pass rate per stage and gate cycle time are relevant. In financial terms, realised savings, avoided costs and shortened development time count. Verifiable capture is important, for example via cost driver analysis.

What is the difference between an innovation funnel and a stage-gate process?

The funnel describes the overall model of progressively narrowing ideas; the stage-gate process is a concrete implementation method with defined phases and decision gates. In practice, both terms are often used synonymously. The funnel emphasises the volume logic, the stage-gate model the

procedural rules.

How can suppliers be integrated into the innovation funnel?

Via structured channels such as supplier days, innovation workshops or early involvement in new developments. What matters is previously verified supplier quality, confidentiality arrangements and clear agreements on usage rights. This creates reliable innovation partnerships without uncontrolled risk transfer.