Sparqbox

Separating the Wheat from the Chaff

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SPARQBOX RESEARCH PAPER

Separating the Wheat from the Chaff

How companies should select and evaluate ideas.
Findings from academic research across 50 companies.

Based on the Master Thesis by Dennis Jacobs

MSc Innovation Management, TU Eindhoven (2015)

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THE PROBLEM

Most Companies Fail at Idea Selection

Companies need innovation to stay competitive. Generating ideas is rarely the problem. The real challenge is selecting which ideas to pursue with limited resources, and which to set aside.

The front end of innovation, the phase where ideas are born and evaluated before formal development begins, is widely recognized as the most chaotic and least structured part of the innovation process. Decisions in this phase are often based on gut feeling, personal opinions, or office politics rather than consistent, objective criteria.

> "There should be a procedure so that it is known why ideas are killed."

- Interview respondent, Rockfon case study

The consequences are real:

- **Good ideas die prematurely** because they reach the wrong person at the wrong time
- **Bad ideas consume resources** because there is no objective evaluation to stop them early
- **Employees stop contributing** because they never receive feedback on their submissions
- **Decisions are inconsistent** across departments, regions, and evaluation rounds

This research set out to answer a fundamental question: **How can a company improve their idea selection process in the front end of innovation?**

RESEARCH APPROACH

Case Study + Benchmark Across 50 Companies

The research combined three methods to build a comprehensive understanding of idea selection practices:

LITERATURE REVIEW

Analyzed academic research on the front end of innovation, covering selection criteria, evaluation methods, and success factors. Key frameworks included the Innovation Funnel (Russell and Tippett, 2008) and the New Concept Development model (Koen et al., 2002).

CASE STUDY

Conducted 15 semi-structured interviews at Rockfon (a subsidiary of Rockwool International, 800+ employees), analyzed internal documents, evaluation forms, and meeting records to map the current idea selection process and its shortcomings.

BENCHMARK STUDY

Surveyed 48 companies across industries (automotive, electronics, building materials, consultancy) about their idea selection practices. Identified the top 25% performers based on innovation success factors and compared their methods against the rest.

48
Companies benchmarked

15
In-depth interviews

6
Selection criteria analyzed

5
Selection methods compared

KEY FINDING 1

Six Criteria for Evaluating Ideas

The literature review and benchmark study identified six main criteria categories used for evaluating ideas in the front end of innovation. The research revealed that not all criteria are equally important, and that best-practice companies weight them differently than average performers.

Customer Acceptance

Does the idea meet real customer needs? Does it offer a clear advantage? How likely are customers to adopt it?

Strategic Fit

Does the idea align with the company's direction? Does it leverage existing strengths and resources?

Marketing Criteria

Is there a significant market opportunity? What is the competitive landscape? Can the company bring this to market?

Competitive Criteria

Does this idea provide a competitive edge? Can the advantage be protected? What is the competitive timing?

Financial Criteria

What are the expected returns? What investment is required? What is the payback period?

Technical Feasibility

Can the company build this? Does it have the technical resources? What are the technical risks?

KEY FINDING 2

Best-Practice Companies Prioritize Differently

The benchmark revealed statistically significant differences between the top 25% companies (those scoring highest on innovation success factors) and the rest. The findings challenge common assumptions about how ideas should be evaluated.

What best-practice companies do more:

- **Customer Acceptance** and **Strategic Fit** score significantly higher among top performers
- **Marketing Criteria** and **Competitive Criteria** are also rated higher
- **Gut feeling and intuition** are used deliberately in the earliest phase, not dismissed

What best-practice companies do less:

- **Financial Criteria** are rated significantly lower. Financial data is unreliable in early stages
- **Technical Feasibility** is also rated lower. Technical challenges can usually be solved

> "Financial methods result in an unreliable number, which is hard to compare amongst multiple ideas."

- Interview respondent, Rockfon case study

The implication is clear: companies that over-rely on financial projections and technical feasibility in the front end of innovation perform worse than those that focus on customer value, strategic alignment, and market positioning. The detailed financial and technical analysis should come later, after ideas have been pre-screened on strategic merit.

KEY FINDING 3

Strategic Buckets + Scoring Models Win

Five commonly used idea selection methods were compared across the benchmark. The results show that two methods stand out clearly among best-practice companies.

Strategic Buckets TOP PERFORMER

Assigns ideas to categories aligned with innovation strategy. Each category has its own resources and evaluation criteria. Companies can allocate effort according to strategic priorities. Scored highest among best-practice companies on all measures.

Scoring Models TOP PERFORMER

Rates ideas against weighted criteria using a numerical scale. Combines qualitative and quantitative measures. Produces a ranked priority list. Most flexible method for comparing ideas objectively.

Checklists USEFUL FOR PRE-SCREENING

Simple yes/no questions to filter ideas quickly. Effective as a first pass based on gut feeling and basic viability. Not sufficient as the primary evaluation method.

Bubble Diagrams USEFUL AS SUPPORT TOOL

Maps ideas on a risk-reward grid. Creates a clear visual overview but cannot be the primary selection tool. Only uses two dimensions, which limits the criteria that can be applied.

Financial Methods LEAST EFFECTIVE

ROI, NPV, payback period. Scored lowest among best-practice companies. Financial data is simply not reliable enough in the front end of innovation to drive selection decisions.

KEY FINDING 4

The Order Matters More Than the Criteria Themselves

One of the most important findings from the case study was that the order in which criteria are applied matters more than which criteria are used. The interviews revealed a clear consensus on when each criterion should come into play during the evaluation process.

EARLY PHASE

Gut feeling and intuition

In the very beginning, when an idea is still rough and unformed, experienced professionals use their intuition to assess basic viability. This is not unstructured randomness. It is pattern recognition built on domain expertise. A simple checklist at this stage forces the idea owner to articulate their thinking without killing creativity.

MIDDLE PHASE

Customer acceptance, strategic fit, marketing criteria, competitive criteria

Once an idea passes the initial gut check, it should be scored against the criteria that matter most: does it serve a real customer need? Does it align with company strategy? Is there a market? This is where the scoring model does its work, producing a ranked priority list.

LATE PHASE

Technical feasibility, financial criteria

Only after an idea has been validated on strategic and customer merit should the technical and financial questions be asked. At this point, the idea has earned the investment of a feasibility assessment. Both analyses use a simple Likert-scale approach, not detailed financial projections, because hard data is still not available.

> "If larger investments are required, financial methods will always be useful as a final check, but they should not be the first criterion."

- Group Development Manager, Rockfon

THE REDESIGN

A Three-Phase Process for Idea Selection

By combining the literature findings, the case study insights, and the benchmark best practices, a structured idea selection process was designed. The process has three consecutive phases, each with clear methods, criteria, decision makers, and outcomes.

Phase	Method	Criteria	Outcome
1. Pre-Selection	Checklist	Gut feeling	Pre-screened ideas
2. Idea Evaluation	Strategic buckets + scoring model	Customer acceptance, strategic fit, marketing, competitive	Priority list per category
3. Feasibility Check	Scoring model (simplified)	Technical feasibility, financial criteria	One-page concept for decision

This process is led by a single person (the Innovation Manager) who is responsible for all ideas entering the organization. An Innovation Committee of cross-functional employees supports the evaluation. The Management Team is only involved when major resource investments are required.

The process is designed to be flexible and user-friendly. All scoring uses a 1-5 Likert scale, avoiding the need for hard financial or technical data that simply is not available in the early stages. Different categories (strategic buckets) can emphasize different criteria through adjustable weights.

PHASE 1

Pre-Selection: The First Filter

The first phase serves as a lightweight filter. The idea initiator fills out a short checklist with a description of their idea. This checklist is based on gut feeling, which the research confirmed as the most important criterion in the earliest stage of evaluation.

Why gut feeling comes first

The benchmark data and interview results both pointed to the same conclusion: experienced professionals have a reliable sense for whether an idea has potential, even with minimal information. Using gut feeling as the first criterion preserves creativity (formal criteria too early can kill novel ideas) while still providing a meaningful filter.

How it works in the redesign

The Innovation Manager distributes the checklist to relevant representatives across departments or regions. If a sufficient percentage of respondents consider the idea promising, it advances to Phase 2. Ideas that do not pass are stored for periodic review, not permanently discarded.

> "A checklist forces people to think about their idea and gather more information about it, without requiring data that is not yet available."

- Interview respondent, Rockfon case study

Key principle:

The purpose of Phase 1 is **not to evaluate the idea deeply**. It is to determine whether the idea deserves the investment of a structured evaluation. The bar is deliberately low: the goal is to prevent obvious non-starters from consuming evaluation resources, while allowing promising but rough ideas to advance.

PHASE 2

Idea Evaluation: Strategic Buckets + Scoring

This is the core of the selection process. Ideas that pass Phase 1 are placed into a strategic bucket, a category that represents a type of innovation the company wants to pursue.

Strategic buckets

Each bucket has its own pool of resources and its own set of evaluation criteria. Common categories include: process improvements, cost reductions, new products, and radical innovations. The specific categories and their resource allocation are determined by the company's innovation strategy.

This method scored highest among best-practice companies because it directly links business strategy to R&D; spending. If the strategy emphasizes cost reduction, the cost reduction bucket gets more resources. Empty buckets can also serve as a signal to encourage ideas in underserved areas.

Scoring model

Within each bucket, ideas are ranked using a weighted scoring model. Each criterion receives a weight reflecting its importance for that specific category. Reviewers independently score each idea on a 1-5 Likert scale per criterion. The weighted total produces a priority list.

The criteria used in Phase 2 are: customer acceptance, strategic fit, marketing criteria, and competitive criteria. Financial and technical criteria are deliberately excluded at this stage, consistent with the benchmark finding that best-practice companies de-emphasize these in the front end.

Who evaluates

A cross-functional Innovation Committee scores the ideas, supported by input from customers when relevant. Using multiple evaluators reduces individual bias. The Innovation Manager

coordinates the process and ensures all ideas receive attention.

Outcome: a **priority list per category**, ranked by weighted score. No discussion or subjective override at this point. The scores speak.

PHASE 3

Feasibility Check: The Final Gate

The top-ranked ideas from Phase 2 undergo a final assessment on two criteria that were deliberately excluded earlier: technical feasibility and financial viability. This assessment is kept simple, using the same Likert-scale approach, because detailed projections are still not available at this stage.

The outcome is a one-page concept document summarizing the entire evaluation: the original idea, the scoring results, the feasibility assessment, and a clear recommendation. This document serves as the basis for the Innovation Committee's final review. Only ideas requiring major investment escalate to the Management Team.

CONCLUSIONS

What the Research Proves

1. Structure beats intuition, but intuition has its place. The best process starts with gut feeling and progressively adds rigor.

2. Strategic buckets combined with scoring models produce the best outcomes. They align innovation with strategy and remove bias from prioritization.

3. Financial and technical criteria should come last, not first. Over-reliance on financial projections in early stages actively harms innovation performance.

4. One person should own the process. Multiple gatekeepers create miscommunication and inconsistency.

5. Every idea deserves feedback. Rejected ideas that receive no explanation discourage future contributions.

6. The process must be flexible. Different categories need different criteria weights, and the system must evolve as the company's strategy changes.

FROM RESEARCH TO SOFTWARE

How Sparqbox Implements These Findings

Sparqbox is the direct implementation of this research into software. Every core feature maps to a finding from the thesis:

- **Strategic buckets** become configurable idea categories, each with its own weighted scoring criteria.
- **Scoring models** become interactive scorecards where reviewers independently rate ideas on a 1-5 scale.
- **Weighted criteria** are configured per category by the admin, with automatic validation that weights sum to 1.0.
- **Priority lists** are generated automatically, ranking ideas within each category by weighted score.
- **The Innovation Manager** becomes the admin role, with full control over categories, criteria, users, and decisions.
- **Cross-functional evaluation** is enabled through multiple reviewer assignments per category, ensuring diverse perspectives.
- **Feedback on every idea** is enforced by the system. Auto-generated feedback includes score breakdowns, criteria highlights, and reviewer insights.
- **AI as first reviewer** extends the model with an independent AI evaluation before human reviewers score, providing an immediate baseline assessment.

About the Research

This summary is based on the Master thesis "Separating the Wheat from the Chaff: Idea Selection in the Front-end of Innovation" by Dennis Jacobs, completed in July 2015 at the Eindhoven University of Technology (TU/e) as part of the MSc in Innovation Management program. The research was supervised by Dr. T. Treffers and Prof. dr. F. Langerak, and

conducted in collaboration with Rockfon, a subsidiary of Rockwool International.

Learn more and try Sparqbox

sparqbox.com

Every idea deserves an answer.