

Cost Innovation Methodology

Intent

The intent of the Cost Innovation methodology is to outline an approach to

- define million-dollar problems that, if solved, would generate million-dollar cost savings
- estimate the total achievable cost savings for Stena Line for the coming year
- execute cost-savings Innovation Challenge workshops

Process Owner / Customer

The process owner for this Methodology is Stena Line's Innovation Director. The customers are senior leaders at Stena Line responsible for delivering cost savings in their areas of responsibility.

Overview

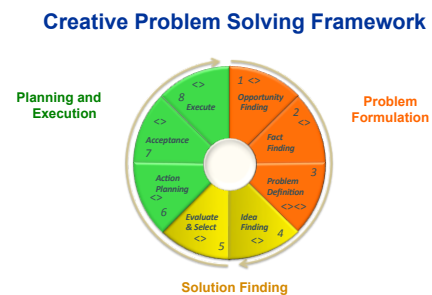
The Cost Innovation Methodology is a targeted application of the Creative Problem Solving process. It begins with a detailed analysis of current operating costs to identify specific opportunities for savings. These cost savings opportunities must be translated into "million dollar problems to be solved". Once these "million dollar problems" are identified and prioritized, specific Innovation Challenge workshop objectives and problem owners can be defined.

Establishing a drumbeat of Innovation Challenge workshops throughout the coming year will define the total expected cost savings contribution from the Stena Line Innovation Program.

The benefits of following this Methodology include:

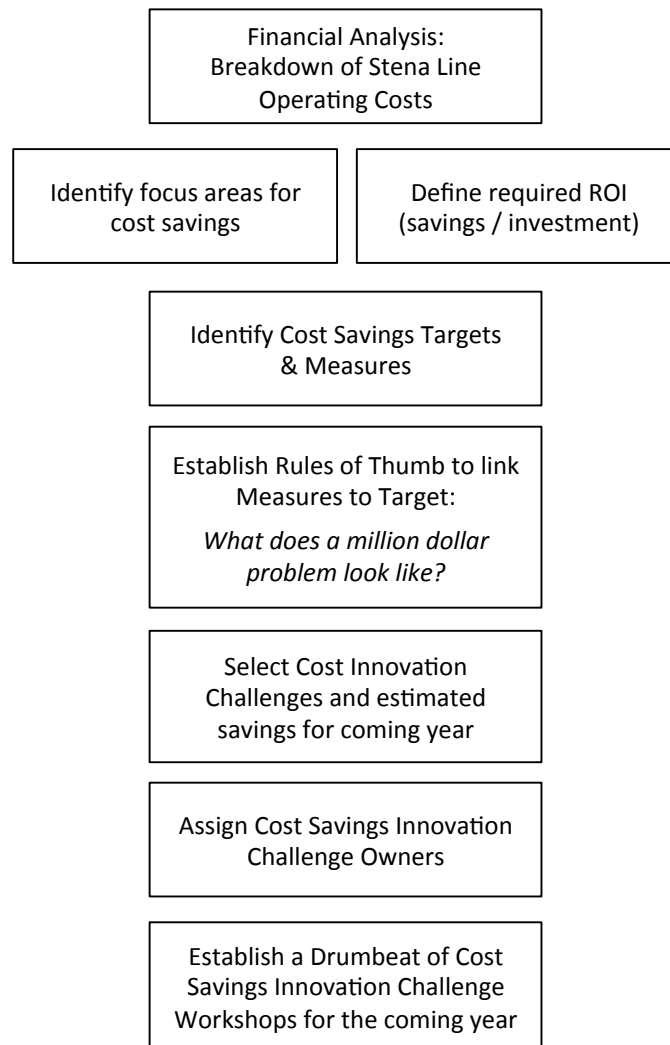
- focusing the Innovation organization against the most important cost savings opportunities for Stena Line
- a more predictable stream of cost savings projects for execution
- delivering cost savings without compromise to customer satisfaction or operating efficiencies

This methodology works best when done as part of an annual Innovation Strategy process, to avoid resource constraints or conflicting priorities among Innovation Challenges.



Approach

Cost Innovation Methodology Flowchart



Financial Analysis: Breakdown of Stena Line Operating Costs

The Cost Innovation Methodology begins with a detailed financial analysis of operating cost today, a sensitivity analysis of key cost drivers, and establishing realistic benchmarks for each cost contributor. These typically include personnel costs, fuel costs, material costs, maintenance costs, information system costs, sales and marketing costs, and cost for outsourced services.

In general, the more informed an organization is about the key cost drivers in their area of responsibility, the more likely they will make sound business choices to manage these costs.

Identify Focus Areas for Cost Savings

Creating a Pareto chart of all spending types is the first step towards identifying cost savings opportunities. However, the promise of potential cost savings for any given opportunity must be

tempered with judgment regarding trade-offs between cost reduction and other important business performance measures (customer satisfaction, revenue growth, employee engagement). There must be some reason to believe that cost savings can be achieved without causing more harm than good in other areas.

Some example cost savings opportunity statements include:

- How Might We reapply operational best practices from other industries to deliver improved levels of customer service with reduced staffing?
- How Might We optimize our marketing mix to reduce overall marketing spend?
- How Might We reduce food waste by 20%?
- How Might We reduce our IT support spending by 20%?

Define Required Return-on-Investment (Savings versus Investment)

Companies have differing requirements regarding payback periods for capital or other investments in cost savings projects. In a rapidly changing environment, a 3-year payback period requirement is common. In more stable environments, a 5-year payback period may be acceptable.

Identify Cost Savings Targets and Measures

Once a cost savings focus area is identified, specific cost savings targets and measures are needed to drive the Fact Finding and Problem Definition steps of the CPS process. For the Stena Line Port Turnaround project, the cost savings focus area was fuel costs. However, the specific measures for improvement were port turnaround time and average ship speed during a crossing.

When setting specific cost savings targets for a given focus area, the aim is to set targets that are stretching but realistic. Cognitive Scientists believe that setting a goal (in any endeavor) with a 50/50 probability of success provides the highest motivation for action. Reapplying this rule-of-thumb, we should set cost savings targets with a 50% chance of being achieved. Delivering only half of a \$1,000,000 savings goal should still be considered a successful workshop outcome.

Establish Rules of Thumb to Link Performance Measures to the Cost Savings Target

A key to long-term success in Cost Innovation is for staff and managers to have a clear understanding of “what a million dollars looks like” and from that understanding be able to formulate “million dollar problems” to solve. In the case of the port turnaround project, it was estimated that reducing the turnaround time by 15 minutes would enable ships to reduce their average speed during crossings, reducing average fuel consumption, and saving one million dollars per year in fuel costs for ships sailing out of the Belfast port. This rule of thumb, “15 minutes = \$1,000,000” then serves as a very measurable criteria to evaluate the ideas generated during the Cost Innovation workshop.

Select Cost Innovation Challenges and Estimated Savings for the Coming Year

Once a set of potential Cost Innovation Challenges have been identified, with specific cost savings targets for each, they can be prioritized for execution in the coming year. By summing up the potential savings for the top 10 opportunities, we have a basis for estimating the total cost savings expected for the coming year. Applying the 50% rule, if the top 10 opportunities have a total savings potential of \$20,000,000, then the expected savings from the top ideas should yield about \$10,000,000 in realized savings.

Assign Cost Savings Innovation Challenge Owners

The Innovation Challenge owners should be managers with relevant subject matter expertise and organizational influence to both lead the challenge workshop (with support of the Innovation Organization) and drive adoption of the top ideas developed during the workshop.

The Innovation Challenge owner will assist in identifying the correct participants to attend the workshop and ensure the Problem Definition work prior to the workshop is completed (if necessary).

Establish a Drumbeat of Cost Savings Innovation Challenge Workshops

At the projected Phase 2 staffing levels for the Stena Line Innovation Organization, a drumbeat of one Cost Innovation workshop per month is realistic. The total effort for an experienced Innovation Guide to design, prepare, facilitate, and provide on-going coaching for a given Innovation Challenge is roughly 1-2 effort weeks. The effort for the Problem Owner and participants varies widely, driven primarily by the amount of prework required for the session. But, a good rule-of-thumb is an effort week of prework by the Problem Owner and 1.5 effort days per participant. This represents a total investment of 5-6 effort weeks per Cost Innovation Challenge workshop with 10 participants.

Attachment 1
Example Cost Innovation Workshop Agenda

Stena Line Cost Innovation Challenge Workshop

Session Objectives:

Generate breakthrough ideas to deliver on the Cost Innovation Challenge objective.

8:30	<p>Welcome / Agenda / Outcomes for the day</p> <p>Objective Finding</p> <ul style="list-style-type: none">• Review Level of Ambition for the Challenge <p>Fact Finding</p> <ul style="list-style-type: none">• Current Cost Breakdown and Key Drivers• What a Million Dollars Looks Like <p>Problem Definition</p> <ul style="list-style-type: none">• Prewrite Debrief – Why-Why-Why Analysis & HMWs• Top Problems for Idea Finding <p>Idea Finding & Evaluation</p> <ul style="list-style-type: none">• Quiet Storming – Capture top-of-mind ideas• Advanced Ideation Techniques<ul style="list-style-type: none">○ Innovation by Analogy○ Inventive Principles• Impact vs. Effort Analysis <p>Action Planning</p> <ul style="list-style-type: none">• Develop Plan for Evaluating Top Ideas
5:00	<p>Session Ends</p>