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MANAGEMENT CONSULTANTS

Case Study #3 The Case of the Excessive Estimates

The Situation

The Bold Explorer¹ space mission was projected to be 30% over budget and 18% over weight. After two years of design, the projection should have been at least 30% under budget to allow for contingency. Since inception, the project team had consistently worked to reduce overruns. Despite their best efforts, the projected final cost and weight continued to rise, not fall.

On a Friday afternoon Bold Explorer Project Manager Fred Smith¹ received a fax from NASA. The fax instructed the project to halt all procurement. It further directed Fred to appear at NASA HQ within four weeks with an acceptable strategy for finding ways to eliminate the budget and weight overruns without reducing mission science deliverables (although the launch date could be changed). NASA did not demand the overall solution: a way of completing the mission within the cost and weight requirements. What NASA required within the four weeks was an acceptable method of finding the solution.

On Saturday Fred, who had taken the Frontier Associates Inc. (FAI) *Leader Workshop*², called FAI. He said that a breakthrough was clearly needed, and requested an FAI consultant to facilitate the Monday meeting of the group, at which the fax from NASA would be announced to the project team and the first steps taken toward preparing a response.

The Goals

The goals were clear. The Bold Explorer project team had to develop a strategy for finding solutions to the budget and weight overruns sufficiently feasible for NASA to permit the project to continue. The strategy had to be ready for presentation to NASA within four weeks.

¹ Names and certain details have been changed to maintain anonymity.

² This workshop “empowers you to produce breakthroughs with others, particularly when you can’t tell them what to do.”



The FAI Analysis

Continued application of the well known but unsuccessful methods the team had been trying for the past two years was unlikely to work. To produce a breakthrough, something new was needed, which required “thinking out of the box.” We recommended that the project team use FAI’s process for producing breakthroughs and coached Fred on how to decide who should be at Monday’s meeting and how he should speak to open the meeting.

The FAI Solution

The 25-member project team gathered Monday at 8 a.m. Fred read the fax from NASA and suggested the goals for the meeting as summarized above. He also clearly expressed his belief that a breakthrough solution could be found and that this team was capable of finding it. He explained the FAI consultant’s role as a facilitator, and that the team was going to use an FAI process that would enable the team to produce the breakthrough it needed.

The project team applied and benefited from several unique aspects of the FAI process:

- The group agreed to make all decisions using consensus, meaning that everyone had a veto and no one should compromise. There would be a solution only if everyone viewed the same solution as the best one they could see.
- Very early the group aligned on “success criteria,” a set of conditions for a solution to be feasible. This step brought clarity that enabled group members to use their creativity in directions capable of producing the needed breakthrough.
- People expressed ideas without having to defend them, so that the ideas did not become entrenched positions. This contributed to the participants being willing to consider viewpoints that they might otherwise have quickly rejected.
- As the process proceeded the project team created a powerful commitment that switched the team’s attitude from “How are we going to solve this impossible problem?” to “We will solve this problem.”

By the end of Monday’s meeting 19 flipcharts full of possibilities surrounded the room. The possibilities were grouped into nine categories, each of which was taken on for further investigation by a sub-team.



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After the FAI consultant provided guidelines for the remainder of the solution process, the group was able to proceed on its own. By the end of the week they had generated the outlines of a feasible response.

The Results

At the NASA HQ review, rather than just presenting how his team would go about solving the problem, Fred proudly delivered the solution itself. In just four weeks the team had created an entirely new approach to the mission, one with a high probability of meeting budget and weight requirements. The detail level in Fred's presentation was far beyond conceptual and almost comparable to that of the original approach, suggesting that little time would be lost in switching to the new approach.

The chairman of the NASA HQ review board wrote a letter to the project team in which he called their swift development of the solution a "miracle." He added that of all the presentations the board had heard, Fred's was one of only a few that had exceeded the board's expectations.

Summary

Seemingly impossible obstacles are prime opportunities for breakthroughs. Organizations can use FAI's process to reliably produce breakthroughs.