Roadblocks encountered and management tools used during the Chemical Residues project

In my previous book, *Competitive Innovation Management*, I recounted the story of the Chemical Residues project. This project ran into many different kinds of roadblocks during its first four years of existence. Many different management structures, systems, and practices caused delays in the project. Later, division management changed many of these same systems and practices in an effort to improve innovation performance. I will recount the story of the project briefly here.

The story of the Chemical Residues project

In the mid-1980s, Jerry Roth was the head of a business unit in the Industrial Chemicals division of Manufacturing Group Europe (a pseudonym), or MGE. Roth had a problem. His division had a lot of chemical byproducts, or co-products, that he couldn’t find markets for. He wanted to build his division’s revenue, so he asked two engineers to work part time trying to find uses for the co-products. Over a few months they explored over one hundred potential uses. But, after testing, none of them seemed promising. Roth decided to add a chemist, George Marsh, full time to the project.

After joining the team, Marsh looked over the ideas the engineers had tested and found that one of them looked interesting. It was an
idea to use one of the co-products as a catalyst to help remove certain chemical residues from wastewater. The test the engineers had run on this idea had been flawed, and the idea really appeared to have potential. Marsh, who knew both water treatment methods and the chemistry of Roth’s co-products could see the flaws in the test and the value of the idea. The engineers, who were not familiar with water treatment technology, had erroneously dismissed the idea.

The irony of the situation was that Marsh recognized the value of the idea only because his career within MGE had been very unusual. He was a chemist by training, but he had also done a second degree in marketing. He had worked in at least four different MGE business units, including a water treatment unit that had been sold. He had picked up the skills needed to recognize the value of the water treatment idea by moving around. But cross-training and moving around were both completely contrary to the normal career patterns at MGE. People normally stayed in the same functions and the same business units for their entire careers. Only Marsh had the precise combination of marketing and technical competences necessary to recognize the value of this idea.

Roth’s business unit had a growth strategy that incited him to search for new markets for his co-products. The goals corporate set for him also incited him to search for new markets. He set up a project to manage the search. Unfortunately, the company did not have any systematic methods for managing idea generation, and the project team’s more or less random search produced little.

Then, by chance, Roth appointed a chemist to the team. The chemist, as it happened, had had a very unusual career. His mixture of chemical and marketing experiences allowed him to recognize the value of an idea that the engineers on the team had dropped. The company’s personnel management methods produced people with single function and single business unit experience. Marsh was an exception, having crossed both functional and business unit boundaries. Had there been more exceptions like Marsh, perhaps more people would have recognized ideas that fell outside of traditional business unit boundaries.

After seeing the value of the idea, Marsh looked for people who could help him exploit it. Finding them was difficult. Laboratory managers elsewhere in the company were not used to sharing information freely about what their people knew and did. Marsh needed introductions to get information. There was no central competence management system that could tell him what people had worked on. After six