## **Innovation & Emerging Technologies**

## Technical Marketing and the Innovation Landscape— Lessons from a Hardened Marketing Geek

**Phillip Miller & Amy Luther** 

The following article launches a new series sponsored by the AESF Emerging Technologies Committee, which will explore the business side of technology and innovation management and implementation. Because I volunteered our committee for this series, it is my dubious honor to write this first article.

"Innovation for Hire" is the bread-andbutter of businesses that pursue emerging technologies. Frequently, these businesses are owned and managed by engineers or scientists who are outstanding in their field, and see an opportunity to profit from the "Innovation" part of that phrase. It is all too common that these companies stumble in their drive to achieve market relevance as they underestimate the "for hire" part of the phrase. Ideas are important, but they may not put food on the table. For innovation to achieve relevance, it must endure a different set of standards and satisfy a different set of questions.



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This article will try to discuss the use of a trained marketing professional's role in the process of innovation from conceptual design with potential clients, through commercialization of a market-ready technology. Although emerging technology sits on the "cutting edge" of science, there is an important element of understanding the potential business case, including the potential near and long-term technology implementation opportunities.

#### **Engaging with a Potential Client**

Potential clients seek out sources of emerging technologies with very specific needs in mind, which can lead to a minefield of misunderstandings. They may be seeking the wrong solution, because they may misunderstand their own problem, and they certainly can't be expected to understand the potential that your technology may offer.

Consider the following example: When asked if it was possible to electrochemically debur very small parts (less than 1mm) in a small electroplating barrel, an engineering colleague of mine said "probably not," because he hadn't seen it done before, and because he couldn't explain how a plating barrel could work for selective metal removal, *i.e.*, deburring. A business colleague of mine, overhearing this conversation, asked the question: "Can you explain the phenomena of barrel plating?" The engineering colleague conceded that he could not explain the phenomena of barrel plating, but, empirically, he knew the process was widely used and that barrel plating worked. The punch line is that to dismiss ideas out of pocket could have stopped the conversation and, therefore, cut short a possibly lucrative relationship.

Consider that when a potential client seeks you out, they have pre-qualified the lead. Companies spend vast amounts of money looking for potential customers and qualifying leads. A pre-qualified lead is money in your pocket.

In the example provided above, a marketer will act as the bridge between two positions with inherent bias. Marketers are not burdened with the need to provide solutions, only to accurately identify the problem and find a way to a win-win collaboration. Why is this client approaching us? Is it market driven? Industry driven? Regulation driven? The marketer will also seek to identify if there is a business case reasonableness to the proposed solution.

#### **Transitioning a New Technology**

If it is important to have a marketer facilitate a relationship with a potential client, it is critical to have them participate in creating the business case for the commercialization effort. The problem with many marketing professionals is that they tend to "exaggerate" an emerging technology's utility (marketing term for usefulness). In this case, I define the term exaggerate as being misleading; false; perhaps even an out and out lie. When, then is it appropriate to promote the potential market utility of an emerging technology ahead of exacting and reproducible engineering data? The marketer's answer is "always."

The ability to promote an emerging technology's "potential" is required. I call this "keeping the message slightly ahead of the data." Much like a patent lawyer will advise you not to talk about your invention until after a patent has been issued, often times technical people will advise you not to talk about technology until it is fully validated. Often times, an emerging technology is considered only if it can solve a buyer's most challenging problem. By the time the technology has reached this stage of maturity, you are already too late.

An example here is the case study of touring a ship engineering transmission gear manufacturing facility. The reason for the visit was to promote the use of electrochemical edge finishing as a means of finishing large area gear teeth. The manufacturer's specification called for a very rigorously controlled and tight tolerance radius to be applied to gear teeth edges. The manufacturer stated that any new technology would have to accomplish that particular standard.

While touring the facility to observe the current manufacturing process for achieving this edge radius, we discovered that the current practice was a craftsman manually filing the gear tooth edges, resulting in a product that did not meet the specifications that they were requesting for our technology.

In this example, it is incumbent upon the marketer to discover the true goal of the client. In this case, the client was happy with the results that they were currently getting at looser specifications, they were looking for reduced cost. We were able to redirect the conversation to say "If we can reach your current quality of output, and can do it less expensively, would you be interested?"

#### **Bottom Line**

Ultimately, the technology company makes money off of innovation. But there is an art to successfully shepherding an innovation into the marketplace. Just as a marketer would not presume to be able to create the innovation, great engineers should not presume to be marketers. But where they collaborate, there is power. All great shifts of power in the marketplace have occurred when these two entities align with one another. *P&SF* 



#### About the Authors

Phillip Miller is the Marketing Director at Faraday Technology, Inc., 315 Huls Drive, Clayton, Ohio 45315. Miller coordinates the technical marketing

and business development activities at the company. Prior to joining the company in 1996, he worked as an independent business consultant and a senior business analyst for a Manufacturing Small Business Development Center, a program sponsored by the US Small Business Administration. In that capacity, Miller provided business services and assistance to a variety of small technology and manufacturing firms, including market research, technical writing and communication, and business analysis. In addition, he provided business plan screening and analysis for a federally financed venture capital group. Miller was honored as Business Analyst of the Year by the Dayton Area Chamber of Commerce and the Ohio Department of Development. He currently teaches college-level small business management and planning courses. Mr. Miller is an honorably discharged veteran of the US Army and the Ohio Army National Guard.

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