

# New technology adoption: Part III

*A closer look at the role of innovators and early adopters in the product life cycle curve.*

Back in September 2007 in part two of this discussion on new technology adoption, we discussed the characteristics of the early adopters versus early majority when considering new technology introduction successes. The Adaption Life Cycle chart at the bottom of the page depicts the life cycle curve associated with products of all types as they evolve from the embryonic phase through the stages of growth, maturity and decline. Chemark has overlaid this cycle with five additional stages including innovators, early adopters, early majority, late majority and laggards. These stages are separated into four gaps, or cracks in the bell curve, which to one degree or another, create barriers to product growth and acceptance, and therefore must be understood and dealt with.

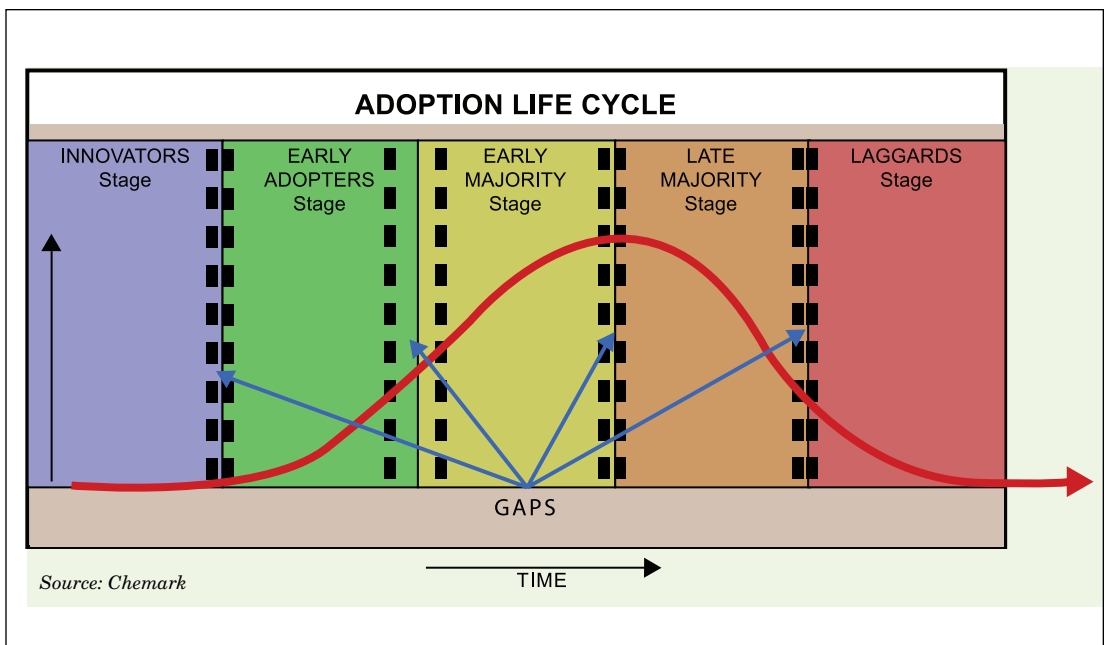
Three of the four gaps are the same width while one space—early adopter to early majority—is three times the width of the others.

For a new innovative coating concept, the first crack in the bell occurs between the innovators and the early adopters. An example of failure in the coatings industry at this juncture was the attempted direct application use of polyester oligomers. The concept was simple, designed to

formulate an oligomer to a certain viscosity at 100% solids and electrostatically spray onto a grounded part, allowing the overspray to be collected and reused, since oligomers remain in liquid form until polymerized. The coated part would then transverse into an oven where it was heated to the point of polymerization and cross-linked.

The benefits of this concept included no VOCs; almost 100% utilization with over spray collection; thin or thick films could be achieved; and no spray equipment change was needed. However, the problem was not in envisioning the benefits. The problem was concern over the control of unsafe by-products of polymerization in an oven. There was little support for a total economic evaluation and the concept faltered.

The initial customers for any new technology are made up primarily of innovators and early adopters. In the very high-tech industries, the innovators are better known as technology enthusiasts, whereas the early adopters are the visionaries. It's the visionaries who dominate the buying decisions in a market, but it is the technology enthusiasts who are the first to realize the potential of any new product. High-tech

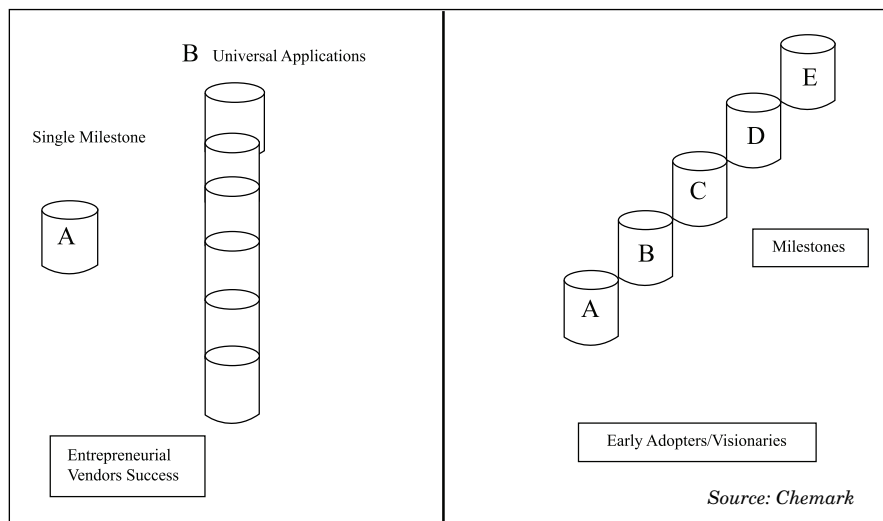


marketing, therefore, begins with the technology enthusiasts.

In any business, technology enthusiasts are the gatekeepers for any new technology. They are the first key to any technical marketing effort. It's ironic that during corporate buying decisions the technology enthusiasts pose fewer requirements than any other group in the adoption profile, but one must not ignore the issues that are important to them. First and most critical, they want the truth. Second, when an issue presents itself they want access to the most technically knowledgeable person to answer it. Third, they want to be first to get the new stuff. Working with technology enthusiasts under a non-disclosure agreement, one is able to extract a great deal of meaningful feedback early in the design cycle, while gaining loyalties that will influence buyers in the market place itself. Of course, the ideal technology enthusiast is one who has access to the major company decision makers.

The early adopters, or visionaries, are persons who have the insight to match an emerging technology to a strategic opportunity, the character to translate that view into a high-visibility, high-risk project and the magnetism to get the rest of their organization to buy into that project. An example of a visionary is Bill Gates and his dream of the company offerings that emerged as Microsoft.

As a class, visionaries tend to be recent entrants to the executive ranks, motivated and driven by a dream. However, the core of that dream is a business goal, not a technology goal and usually involves taking a quantum leap forward in how business is conducted in their industry or by their customers. In the coatings industry visionary leaders have captured market share over the past 40 years with developments such as electrocoat products in the 60s; waterborne automotive topcoats and thin film powder coatings



in the 70s; UV coatings in the 80s and EB coatings in the 90s. Today in 2008 we see visionary leaders taking great risk by fostering the development, refinement and marketing of nano-based coating systems throughout the world and across many markets.

Therefore, the visionaries are not looking for improvements in existing products. They are looking for a fundamental breach of the ordinary and into what might be best described as a breakthrough. Another interesting characteristic of the early adopter/visionary is when they see a vast potential for the technology they have in mind, they are the least price-sensitive of any segment of the technology adoption profile. They can usually provide upfront money to seed additional development that supports their project. As a result, their importance as a source of high-tech development capital is apparent.

One very important additional characteristic of visionaries is that they are easy to sell but very hard to please. The reason is that they are buying into a dream and this dream will always vary from one degree or another.

The most important key to success in launching a new technology is understanding and successfully managing the early adopter/visionary's natural inclination to project manage the tech-

nology by establishing milestones with attendant success plateaus. This mindset is in direct opposition to the inventor/entrepreneur/vendor's natural tendency to desire one major success or milestone that can be extended to a universal multi-customer business base, illustrated in the chart above.

One other important quality of visionaries is that they are in a hurry. They see the future in terms of windows of opportunity that are closing. This mindset exerts deadline pressures, which plays into the classic weakness of the entrepreneur.

The basic needs in dealing with early adopters/visionaries from an entrepreneur/innovator viewpoint include:

- Emphasize control of management expectations;
- Entrepreneurs must deal with Visionaries through a small, top level direct sales and marketing force;
- Entrepreneurs must give them confidence that you can step up to the Visionaries goals;
- Entrepreneurs must be flexible and have the ability to change;
- And lastly, entrepreneurs must keep the spark of the vision alive without committing to tasks that are unachievable within the time frame allotted. **CW**

See Chemark's ad this month on page 47.