Racing to the marketplace

In the high-speed age of the Internet, getting products to market on time is critical, says Preston Smith.

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In a high-tech world where products are obsolete almost as soon as they hit the shelves, the ability of companies to bring their innovations to market in a timely fashion can mean the difference between success and failure.

Ever since he published his book, Developing Products in Half the Time, almost a decade ago, Preston Smith has been a leading light in "time to market" theory and practice.

Citizen High Tech editor Mark Anderson spoke with Mr. Smith recently in Ottawa.
Q Tell me about this thing called Internet time. What does that mean to product developers?

A The whole time scale is compressed. New things appear much faster, old things become obsolete much faster. The rules of the game change much quicker. So what that means for anyone developing products related to the Internet (is that) in order to even stay in business they must be able to respond quickly.

Q With the rate of change escalating all the time, how difficult is it for companies to keep ahead of the production cycle curve?

A I think it is really extremely difficult. We hear about the success stories, we don't hear so much about the companies that can't keep up. They just fall by the wayside.

Q In this day and age, how important is it to be first to market with a product, or at least not late to market?

A The later you are, the more painfully aware you are that you are late. But the remaining opportunity is getting slimmer and slimmer all the time. And so there eventually comes a point where you might be better off giving up on that battle, and getting a fresh start on whatever the next battle will be.

Q What is the cut-off point? How late can a product be to market before it is no longer economically feasible to develop that product in the first place?

A We are strong proponents of doing some economic modelling to determine the cost of delay. Usually for a product there is a certain cost of delay that can be calculated per day or per month, and that is a very valuable tool.

We purposely keep the models simple for a number of reasons, but in real life the cost of delay isn't linear. If, for example, you are developing toys for Christmas, well, Christmas is a pretty well-set window, and if you miss it, it's not just a geometric factor, it's a vertical wall.

Q When you have a defined window of opportunity, such as Christmas, time to market is obviously of paramount importance. Are there situations where being first in is not so important?

A It's not always critical to get to market quickly, because for some products and some markets there are other considerations. There are cases when you can get to market too fast, only to find that the market has not been properly developed yet. And there are some cases when time to market is not even a primary driver. So that again is why you have to do the economics to
determine if you should be pursuing time to market above everything else.

Q This raises an interesting problem. If you are developing a new product for an emerging market, you usually want to be first in so you can gobble up as much market share as possible before the competitors arrive. But you don't want to be so far ahead of the market that you can't predict where it is going to go. How do companies walk this tightrope?

A One of the things you can do is to know your customer. It's very easy for technologists to dream up leading technologies that seem fantastic, but for which there is no market. So we need to keep in touch with the customer.

In the field of high-tech, this isn't so easy, because it's hard to ally yourself with customers for technologies that don't even exist yet.

On the other hand, if the technologists don't have at least one foot planted in the real world, they are going to be so far off in left field they won't be able to really contribute to the economy.

Q What else can a company do to expedite time to market?

A Risk management is important. Understanding all of the risk elements, instead of letting the technologists tell you what the risks are.

There can be a lot of risks especially with these high-tech start-ups. Some of these companies are built around a founder, who had an original idea.

If the founder gets run over by a freight train, what happens to the company? That's one of the risk items that has to be on the table.

Q When you have identified a product, and you know the niche you want to slot into, what are some of the techniques to get there fast?

A One of them is to have excellent cross-functional communication throughout the development process. If you start unravelling the symptoms of slow development, and you dig deeper and deeper into the root causes, the root causes have a whole lot to do with communication.

So that is kind of the inner loop of everything that's going on in product development.

You have to have good communications throughout the development process, especially between people with different mind-sets, like manufacturing, marketing, engineering, purchasing.
Q What do you mean by good communications?

A If you talk to a high-tech person today, what you are going to find is they do a lot of that communicating with various high-tech virtual means, like Internet, e-mail and so forth. And they are sort of enamoured with these high-tech tools they have. But when I use these tools, they don't necessarily work so well.

Face to face communication can really speed things up, and that's something a lot of high-tech people don't fully appreciate.

Q How important is supply chain management in bringing products to market quickly?

A I think it's becoming increasingly important. Traditionally, companies worked at arm's length from suppliers. Now we choose a supplier before we even have a design, and we form a partnership with them based on trust and faith that both parties will gain. And that's a much faster way to go, but it involves this leap of faith that we won't get cheated by our partner, and many companies are having trouble doing that.

Q Is there a trend away from vertically integrated companies, and if so, why?

A I don't have statistics, but I think it's gone that way. I was part of a conference in the U.S. a couple of months ago on outsourcing your product development by finding a supplier who can develop your product for you, which is one piece of that. Since technologies are getting more and more complex, it's harder for any of us to have all the capabilities we need. So we wind up forming alliances with other companies to fill in gaps in the total solution. And those could be customers or parallel suppliers, or whatever.

Q Is a vertically integrated company by definition a slower-moving company?

A Not necessarily. If you are using suppliers over which you don't have as much control, you could be in a worse situation by depending on them to do things on time. That's why the trust-building and communications with those suppliers is so important.

Q Is groupware, or collaborative software like Lotus Notes changing the way products are developed, and the time it takes to bring them to market?

A Yes and no. There is great power in those kind of tools, but I view all these tools as a bandwidth phenomenon. The narrowest bandwidth is e-mail. I can communicate more if I can get on the telephone with you, and that takes more electrical bandwidth. If we go to video-conferencing, I can express myself better, and the ultimate is face-to-face, and that requires some more
bandwidth yet. So there is no real substitute for face-to-face communications.

Q What happens if you can't work face-to-face, if your partners are in different cities, countries or continents?

A If your development partners are geographically dispersed, you should at least co-locate the development team for the first few months of a project, in order to build trust and understanding, and then they can disband and work apart. But if I had my choice, I'd put the whole development team together where they can overhear each other's telephone conversations.

Q Your book came out in 1991. It's now late 1998. What's changed over the last eight years?

A Companies have gotten a lot faster. The title of the book is Developing Products in Half the Time, but the fact is, good companies have already learned how to develop products in a quarter of the time anyway, and most of them are trying to do even better than that.

Q Anything else?

A Another thing that has come up is the downsizing, or lean-thinking phenomenon. Management increasingly wants to do more with less, and that creates a couple of problems. One is that managers equate cycle time with doing more for less, because they figure if they can develop products in half the time, they can develop twice the number of products in the same time.

Unfortunately, it doesn't work that way, because in order to get them done in half the time, you have to put more resources on them.

Managers who get the two confused -- time to market versus increased productivity -- often get neither. They try to squeeze more out of their existing people, it frustrates them, and they don't really think back to the core issues of communications and understanding the customer, so they don't put the foundation in place. They aren't as productive, there is more chaos, and they are slower.