

Forecasts for RFID in 2006

Will RFID reach the tipping point this year? It might, but one thing is for sure—this will be the year when people realize RFID can do more than track boxes in the supply chain.

By Mark Roberti

Jan. 2, 2006—Each year for the past three years, I have written editorials suggesting it would *not* be the year radio frequency identification took off. This year, I'm not so sure. I think companies still have a lot of work to do to RFID-enable their supply chains. The manufacturers that are among the leading early adopters have begun to quantify the costs and benefits. Much of this year will be spent getting back-end systems in place and learning how to use the data to support business process change that will lead to a return on investment.

Providers of RFID inlays and labels also have a lot of work to do. Makers of RFID labels tell me as much as 20 percent of the Gen 2 EPC inlays they are receiving don't function. They have to test the inlays, remove the bad ones and test the finished labels to make sure they can deliver functioning labels to their customers. That drives up the price of labels considerably.

Another question that arises is how well Gen 2 labels will interoperate. Will all Gen 2 interrogators be able to read tags with Gen 2 chips from [Impinj](#), [Philips Semiconductors](#), [Texas Instruments](#) and other chipmakers? Theoretically, all EPC Gen 2-compliant interrogators should be able to read all the chips, but slight differences in the implementation of the standard in the chips can lead to interoperability problems.

Because end users have so much work to do to get systems in place that will drive benefits, I don't see the volumes of tags consumed in the open supply chain ramping up until late in the year, at the earliest. We may reach the tipping point in late 2006, but volumes won't start to rise significantly until 2007. My best guess, then, is that 2007 will be the year RFID takes off.

That said, I think 2006 will be the year—and please excuse the cliché—that people start thinking outside the box. For too long, RFID has been seen simply as a technology for tracking goods in the supply chain. I think it's fitting that our first magazine cover story for 2006 will be about embedding RFID in products to make them smart, more useful or easier to maintain and recycle. For that article, I interviewed Hagen Wenzek, leader of the global electronics team at the [IBM Institute for Business Value](#), a unit of IBM Business Consulting Services.

Wenzek told me that over the past year or so, he has seen a change in the way people view RFID. "A year ago," he said, "RFID was the hot topic and people were struggling to find an application for it. Now, they are looking at a business problem and seeing RFID as one tool in their toolbox that might solve that problem."

Our cover story will look at a number of companies that have embedded RFID in their products to solve business problems and even create new business opportunities. That's a trend that will only pick up steam in 2006 as more businesspeople become aware of RFID's potential to add value to many products.

No doubt, there will be projects that fail because RFID isn't the right technology, or because the benefit isn't

justified by the additional cost of embedding an RFID tag or interrogator in a product. But as our cover story will show, RFID can deliver tremendous benefits to manufacturers of RFID-enabled items and their customers.

Another trend I see for 2006 is the emergence of big players in the RFID market. For most of the past three years, startups and smaller established firms have been among the key players. Some of the weaker startups will fade away (many are already conserving resources, and some are on life support). Some firms with good technology but limited resources will be bought up, while the bigger players will play an increasingly important role. Software companies such as Microsoft and SAP will likely start making more noise about what they are doing and what they can do for high-volume end users. Large integrators, such as Accenture, CSC, IBM and Unisys, will also assume a more important role as those high-volume end users start broader rollouts.

The next 12 months might not cement RFID's position as an important business technology, but they could help determine the long-time winners and losers, among both end users and vendors. The end users that figure out the business case and begin effective rollouts will be in a stronger position than their competitors, as will the vendors that get their technologies and supply chains honed to deliver the solutions their customers need.

It should be an interesting year.

Mark Roberti is the founder and editor of RFID Journal. If you would like to comment on this article, click on the link below.

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