

**Deploying RFID successfully is no simple matter. Here are the essential truths CEOs need to understand about the technology to establish a successful deployment strategy.**

It would be nice if CEOs could approve the purchase of RFID equipment, appoint someone to oversee the installation and then focus on other issues, such as growing the top line. But taking that approach is risky. Like the Internet, RFID is a technology that will eventually touch every part of every company's business. CEOs who set the overall direction and provide leadership will ensure that their RFID deployment drives the company's larger strategic initiatives forward. Here are the 10 things that CEOs need to understand about RFID today in order to set their company on the proper course.



**Widespread adoption of RFID technology might take years, but it's inevitable.** Even though major organizations, including Wal-Mart, Metro Group, Target, Tesco and the U.S. Department of Defense, have publicly committed to using RFID to track goods in their supply chain, there are still many companies that are waiting to see if the technology will spread beyond the retail, consumer packaged goods and defense industries. It will. The reason: RFID has the potential to solve a wide variety of problems, such as counterfeiting, inventory inaccuracies and complying with the increasing number of track-and-trace regulations (see [Coping with Regulations](#)).

RFID offers companies the potential to achieve a new level of business efficiency. Right now, adoption is being driven by a small group of very large organizations in the United States and Europe. But all companies in all industries will be able to achieve benefits as hardware prices drop. "RFID will be pervasive around the world, so companies are going to have to develop a pathway to adoption sooner or later," says Sean Campbell, a partner with IBM Business Consulting Services.



**RFID is infrastructure that needs to be leveraged across the enterprise.**

Many CEOs are looking at the cost of an RFID system and wondering where the payoff is. But RFID is not just a supply chain technology. "This is a technology that's going to provide an infrastructure for doing a lot of things," says Pete Abell, cofounder of ePC Group, a consulting firm. "It's going to impact the whole organization."

Abell recommends that CEOs set up steering committees that include senior executives from all functional areas of the business because it's impossible for supply chain and IT managers to know everywhere RFID can be applied profitably. For example, heads of corporate security are seldom put on a RFID steering committee. Yet, RFID could play an important role in helping companies to comply with regulations designed to reduce the chance of terrorists using a shipping container to sneak weapons of mass destruction into a country. "You want a committee that can look at all of the possibilities and make right decisions about where to use the technology first," Abell says. "It

goes beyond just supply chain, logistics and IT.”

CEOs also need to understand that with all infrastructure technologies, the upfront costs can be steep and the benefits come over time as the incremental cost of using the infrastructure declines. Once RFID readers are installed for one application, everyone within the company needs to look for ways to use the data gathered to cut costs, reduce out-of-stocks and improve customer service.



### **RFID is not a panacea.**

There's a lot of talk about the huge potential benefits of RFID, but the technology will not fix underlying problems. In fact, it will probably exacerbate them. “RFID can be a very dangerous tool,” says Jonathan Loretto, global technology lead for RFID at Cap Gemini Ernst & Young. “If you do it correctly, you can add a lot of value to your organization. Do it badly and you can detrimentally affect your profitability in the medium term.”

CEOs need to light a fire under the senior executives on the steering committee to make sure that the company is well prepared for RFID. The IT department may need to get the company's global data synchronization efforts into high gear and upgrade its warehouse networks to handle RFID data traffic. Supply chain and logistics managers have to fix any broken business processes. It may be possible to use RFID to turn an operationally inefficient company into a top performer, but only if the CEO communicates a plan for taking the company to another level.



### **RFID is only the beginning.**

RFID will change the supply chain from one in which products are pushed to shelves to one in which products are pulled by real demand signals (see [Think Strategically](#)). But to achieve the enormous efficiencies this change will bring, such as less inventory across the supply chain, companies need to invest in more than just RFID tags and readers. They have to build an IT infrastructure capable of using real-time RFID data to make real-time decisions.

“In today's world, events occur and the data is stored for a while before being processed and acted upon,” says Cap Gemini's Loretto. “That paradigm doesn't work in the new world. When an event occurs, you need to make decisions dynamically as close to the event geographically and temporally as possible and then store the information related to the decision.”

Getting there will take time—and money. CEOs need to communicate a vision of a new kind of highly adaptive supply chain, so the company as a whole understands where RFID is leading. CEOs also have to ensure that incremental savings achieved with each application of the technology are reinvested in new systems needed to achieve the long-term vision.

**Collaboration is key.**

Many of the benefits of RFID can be achieved only through cooperation between supply chain partners. But sharing information on, say, inventory levels is a big change for many companies used to protecting data. It will take pressure from the CEO to get people inside the company to work with those outside the company, and it will require the CEO to reach out to partners to encourage them to seize opportunities.

Achieving real breakthrough efficiencies may require going beyond just sharing information. Dave Donnan, a vice president at management-consulting firm A.T. Kearney, says manufacturers should consider sharing regional distribution centers with each other. “If you have information on case-level movements, do you need to have a distribution center in every region?” asks Donnan. “Can you go into collaborative warehouses with other manufacturers, so everyone can get full truckloads going from the warehouse to the retail store? This idea of pooled distribution requires a different mindset from the current ‘I own everything’ mentality.”

**Success requires cultural change.**

There’s been a lot of focus on RFID technology and not much focus on the people who will be affected by its deployment. The companies that achieve the greatest benefits from RFID will be the ones with employees capable of adapting to new ways of doing business. The most important thing a CEO can do to ensure the success of an RFID deployment is to drive cultural change—to champion innovation, fund retraining programs when business processes are changed and reward successful projects.

**An RFID strategy must be implemented globally.**

Regulations governing the use of RFID equipment operating in the UHF spectrum (868 MHz to 956 MHz) vary by region of the world and even by country. Readers that work well in the United States can’t be used in Europe. And tags that an apparel maker puts on goods in Asia might not be readable by equipment at the company’s U.S. and European distribution centers. Multinational companies need to develop a global strategy to ensure that the equipment they choose works in all the regions where they operate.

This issue also must be addressed by companies that import and export goods, says ePC Group’s Abell. “You need to understand the regulatory issues in [the regions you import from or export to],” he says. “If you don’t, you could wind up purchasing tags and readers that you can’t use. We’re talking about huge amounts of money that would potentially be thrown away.”



**There is no formula for calculating the costs and benefits.**

It would be nice if CEOs could get a hard dollar figure for the costs of an RFID system and an estimate of the benefits that will be achieved. Unfortunately, calculating the costs and benefits is a real challenge. Procter & Gamble figured out what it would need to do to comply with Wal-Mart's RFID tagging requirements, then it reverse-engineered the RFID system to determine its hardware, software and other requirements. That enabled the company to get a handle on the near-term costs.

Understanding the benefits is even more difficult, particularly for manufacturers who don't have complete control over when and how the benefits will be realized. For instance, just putting an RFID tag on a case won't reduce inventory or prevent an item from being out of stock. Retailers have to change their processes. So CEOs of manufacturing companies need to engage their retail partners to ensure that both parties are working in tandem to achieve benefits that can be measured over time.



**Privacy is a serious issue.**

Few CEOs have really considered the privacy issue because few companies are planning to tag individual items within the next few years. But privacy is a critical issue to all companies even today. "The importance of privacy concerns can't be underestimated," says Cap Gemini's Loretto. "Even though we are talking about tagging within the supply chain, the issue is still in the customer's mind, and it can be warped [by RFID opponents] to damage a company's brand."

A.T. Kearney's Donnan suggests that companies work with industry bodies such as EPCglobal and trade organizations to address privacy concerns. He also says that companies need to educate consumers about the benefits they will derive from the technology. Among the issues that will resonate with consumers are RFID's potential to improve food safety, reduce the counterfeiting of prescription drugs, and provide better access to return and warranty information.



**The implementation must be assessed periodically.**

As with any major IT deployment, it's important to establish milestones and assess progress. It's particularly critical with RFID because the deployment, including changes to network infrastructure, enterprise resource planning systems and specific applications, will likely be a three- to five-year endeavor. CEOs need to hold the steering committee accountable for ensuring that measurable benefits are being achieved at each stage.

The deployment also has to be reassessed based on what's happening in the marketplace. "We're all assuming that this technology will improve, and the price of tags and readers will drop," says Donnan. "That's probably a good assumption, but what if the price doesn't drop as fast

as expected? There need to be points of reviews that accelerate or slow down the deployment.”

Jack Welch, the legendary former chairman of General Electric, undertook several campaigns during his long career to remake his company—Workouts, Six Sigma and E-business among them. He championed these initiatives internally and drove change throughout GE's many divisions. As a result, he was able to cut costs, improve the company's ability to execute and deliver consistently high returns to shareholders. CEOs who want to achieve dramatic benefits from RFID should emulate Welch and turn their RFID deployment into a corporate-wide campaign. Those who do may transform a good company into a great one.