

Researchers at the Fraunhofer Institute for Production Technology and P3 say businesses don't appreciate how RFID can help improve the efficiency of numerous business processes.

By Rhea Wessel

April 9, 2008—Decades after RFID was first commercialized, bringing consumers everything from keyless car entry to blood-tracking systems, businesses are using the technology only in isolated projects, according to a survey of 100 German companies, most with more than 1,000 employees and sales of €100 million (\$158 million) per year. What's more, half of the respondents said that at best, they were only partly happy with the technology's ability to achieve the business goals their company had set.

The survey was performed by the [Fraunhofer Institute for Production Technology](#) (IPT) in Aachen and [P3 Ingenieurgesellschaft](#), a consulting company that spun off from the institute in 1996. The [Institut für Distributions und Handelslogistik des VVL](#) (Institute for Distribution and Trade Logistics) in Dortmund performed a comparison of technologies. Both the survey results and technology comparison were incorporated into a report released late last month. P3 expects companies in all sectors that are considering RFID projects to be interested in the report, though the firm will not reveal the cost of purchasing a copy.

From an initial pool of 1,200 companies, 100 companies in the logistics, mechanical engineering, automotive, aerospace and electrical engineering industries responded to the survey. The questionnaire featured approximately 40 broad questions regarding the use of RFID or other automatic-ID technologies, as well as expectations for the supply chain. The questions asked included, Which division in your company drove or is driving RFID? In which areas do you see potential for RFID? Did RFID deliver what you expected?

Ulf Glaser, the head of P3's auto-ID business unit, says, "I believe that competition in the future will be among companies' logistics processes, instead of their products and services." This belief is the reason Glaser strongly supports RFID, a technology he says will improve companies' logistics, as well as other processes. Still, he says, the study's results surprised him.

"Given the potential of RFID to improve business, IT and logistics processes, as well as the importance of logistics, you would think businesses would see RFID as more than an IT project," Glaser says. "After all these years, businesses still don't appreciate RFID for what it really is—a tool for improving the efficiency of countless business processes. If I leave a message at a company for the person in charge of RFID, it's always the IT department that calls me back, not the management. In other words, RFID has not yet reached the CEO suite."

The report's authors say the technology is still far from reaching its potential, and note that 25 percent of respondents believe that for a variety of reasons—each different, depending on the application—RFID was too immature to meet their company's goals.

German Study Shows Companies Dissatisfied With RFID's Ability to Meet Goals

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Other results: Some 43 percent of RFID projects are initiated in IT departments. Sixty-six percent of the companies surveyed employ RFID for internal applications, while 40 percent use the technology with partners within the same branch. Only 23 percent reported a positive experience with RFID, while 18 percent had no experience. One third of respondents said they were partly happy with the ability of RFID to reach business goals, while another 32 percent were mostly happy and 18 percent were not happy at all.

Separately, the technical comparison showed that RFID component performance to be dependent on a variety of parameters. RFID applications suffer from a lack of standards, as well as the difficulty of setting up and tuning a system.

Many respondents said their companies experimented with RFID because they felt they must, given the hype surrounding the technology. "There's definitely a technology push, and not an industry pull," Glaser says. An absence of prime contractors that can provide complete RFID systems—including all the necessary hardware, software and consulting—made projects more complicated since companies had to work with an average of four partners on single projects.

Additionally, Glaser says, the study showed that most companies were unable to use RFID as part of a business case for a fundamental change in business process: "It is too overwhelming to refigure material flow, data flow and the flow of money in a single RFID project," he explains.

Finally, Glaser says the study revealed that most companies do not plan their applications properly to get the most out of RFID from a process-improvement and business perspective, though they are motivated by lowering costs (72 percent of respondents said they launched RFID projects to improve processes) and reducing errors.