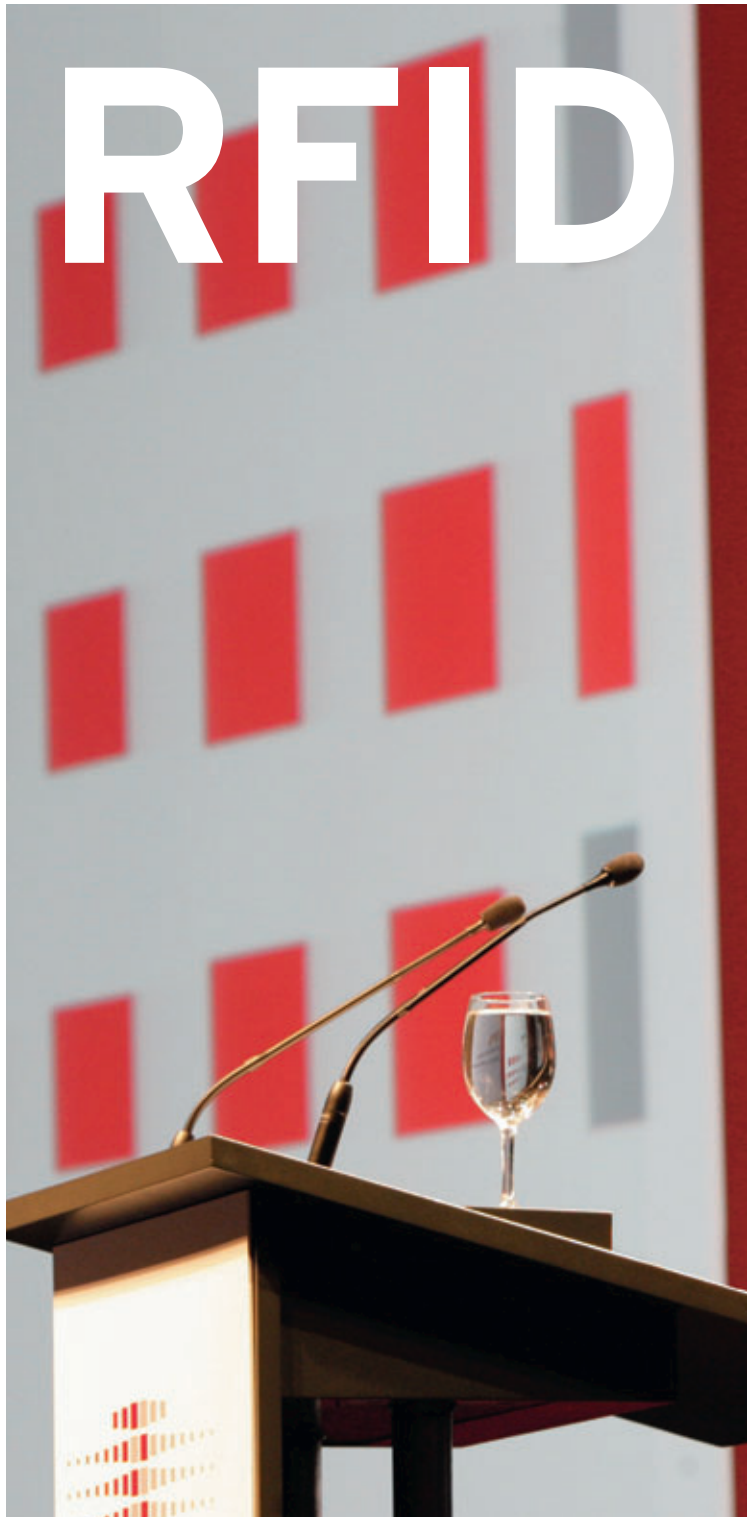


RFID



Dear readers,

Inventive genius alone is not enough to achieve progress. Ultimately, ideas only become innovations when companies turn them into marketable products. German scientists are leaders in the research and development of RFID. We should make use of this head start, because this technology harbors great opportunities for both the economy and consumers – and for Germany as a whole. Together with our 30 partners from the consumer goods industry, we recognized this potential early on. These companies have delivered more than 200,000 pallets with RFID transponders to our supermarkets and stores until today.



From these experiences, we need to pick up the thread and continue to ensure that Radio Frequency Identification reaches market maturity and contributes to the value chain. At the second RFID Congress for the partners and suppliers of the METRO Group in Cologne in early June, we presented additional details regarding our plans for the RFID roll-out. In our title story about the congress, we draw the conclusions from the first 200 days and report on the next steps. Here you can read which industry partners will tag their merchandise deliveries to the METRO Group with Smart Chips and what our RFID schedule will look like through the end of 2006.

In addition, we have interviewed Dr. Andrea Huber, Managing Director of Informationsforum RFID e. V., regarding the work of this newly established organization and the significance of transparent communications in connection with new technologies such as RFID.

We hope you enjoy your reading.

Yours,

Zygmunt Mierdorf

Member of the Management Board of METRO Group

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METRO Group
Future Store Initiative



ON THE WAY TOWARD THE SMART FRIDGE

METRO GROUP RFID CONGRESS PRESENTS “EPC – THE NEXT RETAIL GENERATION.” In the supermarket of the future, “smart grandmas” no longer take their groceries out of their cart to check out: they effortlessly push it through a modern Self Check-out where their purchases are automatically registered. With this vision – presented in a film by IBM and the METRO Group – the retail company opened its second RFID Congress in Cologne on June 9, 2005.

In November 2004, the use of Radio Frequency Identification became reality at the METRO Group: some 30 industry partners now tag their deliveries to the Duesseldorf-based retail company with RFID transponders. At the second RFID Congress, the METRO Group presented previous results and the next steps. More than 500 expert visitors used this opportunity to obtain information on technical innovations at the Cologne fairgrounds. Numerous partners of the METRO Group Future Store Initiative were also on site and presented innovative solutions for the introduction of RFID technology. The event was held under the motto “EPC – the next generation of trade and retail.”

How everything began

“More than five years ago, I visited the Auto-ID Center at the Massachusetts Institute of Technology,” said Dr. Gerd Wolfram, Managing Director of MGI METRO Group Information Technology GmbH. “I was particularly impressed with the smart household devices and fascinated by how RFID could be used in everyday life.” For example, refrigerators equipped with RFID readers report when the supply of milk runs low – provided the milk container is tagged with a Smart Chip. Dr. Gerd Wolfram: “Ever since, we have

been working on developing ideas and visions of how the technology can be used in the retail sector.”

In Western Europe, the consumer goods industry is facing one of the largest challenges of the past 30 years: “In this situation, RFID is the key to more efficiency and customer orientation,” Stefan Feuerstein, Member of the Management Board of METRO Group, said in his welcoming address at the congress. With the help of the technology, the retail sector and the industry can constantly monitor the process chain and avoid supply bottlenecks. This way, the desired items are always available to consumers.

From vision to reality

“Ideas alone are not enough,” said Zygmunt Mierdorf, Member of the Management Board of METRO Group. “They must also be implemented for the benefit of our customers and ourselves.” The first step on the way toward the future of the retail sector was the establishment of the METRO Group Future Store Initiative in 2003. Since then, the retail company has been evaluating the potential of RFID technology together with its partner companies. The results of the pilot projects convinced the executives in charge. The process

Interim conclusion: RFID at Real and Kraft Foods



At Real and Kraft Foods, the RFID roll-out is in full swing: the food manufacturer is one of a total of seven industry partners with whom Real collaborates for the introduction of the technology. With the help of RFID, Kraft Foods intends to increase the availability of its products in supermarkets and stores.

So far, Real has equipped eleven warehouses with the new technology, and 94 additional warehouses have been prepared for system conversion. The sales division is already recording a high process success rate: more than 80 percent of all delivered pallets are registered without error. Together with partners from the industry, Real is working on continuously enhancing this performance. In doing so, the continued improvement of the technology tops the agenda.



Page 2: More than 500 trading partners and suppliers of the METRO Group brought themselves up to date on new technological developments. This page: Stefan Feuerstein (left) took stock of the project's current status. Zygmunt Mierdorf (right) demonstrated the potential of the new technology.

costs in the incoming goods area have decreased, out-of-shelf situations in the categories in question have occurred less frequently, and merchandise losses have declined. Two events have finally marked the start of the RFID roll-out: the first RFID Congress in May 2004 and the opening of the METRO Group RFID Innovation Center in July of last year, where the suppliers of the retail company can test RFID technology under real-life conditions.

Strong performance

About twelve months later, the METRO Group has achieved a great deal together with its industry partners. Today, some 30 companies tag their deliveries to selected warehouses and Metro Cash & Carry, Real and Kaufhof stores with RFID transponders. An initial interim

conclusion shows that the company is on the right course. The success can be measured: while employees in the warehouses of the sales divisions needed about 90 seconds for the incoming goods process in the past, this time has decreased to 70 seconds thanks to RFID. This represents an acceleration of 22 percent. When reconciling an entire truck load with the order, the retail company can even realize time savings of 80 percent: while this process used to take the employees 15 minutes to complete, it only takes three minutes now.

Jointly solving problems

"Of course, there were initial difficulties," says Stefan Feuerstein. For example, in the beginning, the reading rate of the transponders

was not optimal. In close collaboration with its partners, the group analyzed the causes and developed solutions. One problem was that the RFID transponders reacted sensitively to metal and liquids. As a result, companies such as Nestlé, Gillette or Henkel have been looking for a transponder that can be affixed to all kinds of transport packaging without negatively affecting the reading rate – no matter whether the pallet contains liquid laundry detergent or chocolate wrapped in aluminum foil. Together with the RFID specialists Sato and UPM Rafsec, the companies found the right solution – the so-called Flag Tag. In this tag, the RFID antenna is integrated into the label in such a way that it sticks out perpendicularly from the shipping container and is far enough removed from interfering materials. "A simple, quickly implemented and very effective solution that meets the prerequisites for reliable pallet labeling even for the second generation of transponders," said Oliver Zeeb, Managing Director of Sato Deutschland GmbH.

RFID in the clothing industry

One day before the second RFID Congress, Kaufhof Warenhaus AG had invited people to participate in the "RFID4Fashion" workshop. More than 30 participants from Europe, Asia and the United States discussed the potential of Radio Frequency Identification for the textile sector. Pilot projects such as the ones conducted by Marks & Spencer also show how process efficiency and customer service can be improved with RFID. However, before the technology can be used profitably at the item level, the unit price of transponders must continue to decrease from the users' point of view. Currently, as part of a project by GS1 Germany, several textile retailers and manufacturers are developing a cost-effective reusable RFID label that can simultaneously be used for Electronic Anti-Theft Systems (EAS) in the country of origin. After the customer has paid for the item, the RFID transponder is removed at the store and sent back to the clothing manufacturer.



Prerequisites for suppliers

Many more companies will be participating in the roll-out of RFID by the end of the year. The following partners have already been determined: Beiersdorf, Henkel Waschmittel (detergents), L'Oréal and Unilever Bestfoods. "The basic prerequisite for the RFID roll-out is that the companies must be able to send the delivery note to the retail company via Electronic Data Interchange (EDI) in the Despatch Advice (DESADV) message format," says Dr. Christian Plenge, RFID Project Manager at MGI METRO Group Information Technology GmbH. Therefore, the METRO Group has successfully provided intensive support regarding the implementation of DESADV to its suppliers over the past few months: at Real and Metro Cash & Carry, the number of suppliers using DESADV has increased by 20 to 28 percent from December 2004 to March 2005. At Kaufhof, this number was up even 60 percent.

Well-informed

The retail company provides its partners with comprehensive information, e.g. with the "Guidelines for the RFID Roll-out at the METRO Group." "We will individually develop an exact RFID schedule with each single company," says Dr. Plenge. During the entire process, the partners are supported by an RFID Solution Team consisting of representatives of the METRO Group and employees from the technological partner companies. The RFID calculator developed by IBM and GS1 Germany also provides an opportunity for companies to assess the costs and benefits of RFID in advance for themselves. "The RFID calculator is an important decision-making aid. As early as during the planning phase, it shows companies how the use of RFID pays off during the optimization of



The participants of the congress had plenty of time to exchange RFID experiences and make new contacts between presentations.

their processes," says Klaus Vogell, Senior Project Manager at GS1 Germany.

Second-generation chips

Currently, the selected suppliers of the METRO Group tag only pallets with RFID transponders. As soon as transponders of the new EPCglobal standard Class 1/Generation 2 are available in sufficient numbers, the application of RFID will be expanded to include cartons. Initial prototypes are already available and tested by the METRO Group at the RFID Innovation Center. Dr. Wolfram: "Given the excellent results, we assume that we will be ready to start the second phase of the RFID roll-out as early as next year."

The technology prevails

The competition is also actively pursuing RFID: Wal-Mart, Tesco, Albertsons, Target and Best Buy have also begun to establish the technology within their companies. In Germany, the Rewe Group and Kaiser's Tengelmann announced in early May that they would test the use of RFID in their warehouses before the year is out. Dr. Wolfram called on the attendees of the congress to participate in the process: "Don't let progress pass you by."

The more companies use RFID or the Electronic Product Code, the faster the technology will evolve and prevail in the market. In just a few years, Smart Chips could become a reality on individual products – as well as the Smart Fridge or the modern Self Check-out the "smart grandma" enjoyed so much during the introductory film.

Efficient merchandise management in the wholesale sector

Together with 13 industry partners, Metro Cash & Carry Deutschland GmbH is successfully using RFID. The technology accelerates the receipt of pallets at the incoming goods area of Metro Cash & Carry. The delivered pallets are sorted into high shelves in the store. In the future, inventory management could be made easier and service could be improved through RFID. For example, if a customer wishes to know if a certain brand of coffee is in stock, an employee can immediately check the current inventory. The most important prerequisite is the use of RFID at the carton level. This is planned for the first half of 2006 but will be restricted to the incoming goods area.



RFID COMPACT



>> Commitment to the next generation

The retail companies Ahold, Carrefour, METRO Group and Tesco have agreed to adopt the EPCglobal standard Class 1/Generation 2 in their RFID projects unchanged. This is one of the results of the European Adoption Program (EAP) task force by GS1 Europe. The IT companies Philips and Texas Instruments are currently collaborating closely in testing chips and readers to meet the technical requirements for the standard. This ensures the seamless interoperability of second-generation RFID systems from different manufacturers. Since June 2005, the METRO Group has been testing EPC Class 1/Gen. 2 RFID transponders at the incoming goods area of the Future Store in Rheinberg.

>> Rewe plans to use transponders

The Rewe Group has joined the RFID/EPC implementation network and announced that it will introduce the technology together with suppliers. The trading company has been testing RFID in a twelve-month pilot project since 2004. Together with Cologne-based brewery Gaffel Becker & Co., Rewe is using RFID transponders on beer cases in order to optimize beverage logistics.

>> Air cushions against interference

The Paxar company, which specializes in product labeling and merchandise logistics, has developed a new RFID transponder type. The so-called SpaceTag allows simple pallet tagging even for products containing metal or liquids. An integrated air cushion made of foam prevents materials from disturbing the transmission path between transponder and reader. The SpaceTag is elastic so that it can be compressed during transport and decompressed again afterwards.

>> A showcase for RFID

In April 2005, the companies SAP, Capgemini and Vanderlande Industries opened an "RFID Experience Center" in collaboration with other companies in the Dutch town of Veghel, north of Eindhoven. Using the real-life environment of a distribution center, the collaborating partners are demonstrating the potential of RFID technology step by step – from incoming goods and packaging to delivery. Expert visitors can witness on site how RFID can help optimize processes.

>> High-tech cheese

Northern Italian dairy producers use RFID technology to protect Parmesan cheese from counterfeit products from Eastern Europe. For this purpose, RFID transponders are inserted into the crust of fresh Parmigiano Reggiano. Production date and information on origin, quality and price are stored on the transponder. Previously, the Parmesan cheese was branded with a serial number, with the disadvantage that the numbers faded during the six- to 36-month ripening period. Thanks to RFID, mix-ups among the cheese wheels, which cost between 150 and 300 euros, are a thing of the past. In addition, the dairy producers expect to be able to lower their operating costs by up to 50 percent with the help of the new technology.

>> RFID on the hoof

As part of a government program, Australian farmers tag their livestock with RFID transponders. Each animal receives an identification number that provides information on its origin. If they suspect an epidemic, the health authorities can immediately locate the origin of the crisis via a central database. The Australian authorities expect the system to lead to greater product safety for consumers. Cattle in New South Wales and western and southern Australia are already wearing the Smart Chips. The program is also being implemented successively in other states.

>> Smart carpet

The companies Vorwerk and Infineon have developed a textile floor covering with integrated RFID technology. On the underside of the carpet, transponders form a kind of network that covers the entire area. The individual chips can be assigned to specific rooms, e.g. bedroom or corridor. In this manner, a programmed robotic vacuum cleaner with an RFID reader could effortlessly navigate the "smart" carpet.

"RFID REQUIRES HIGH ACCEPTANCE."

> Interview with Dr. Andrea Huber

The Informationsforum RFID began its work in August of 2005. A total of 15 companies from the retail sector, the consumer goods industry and the IT and service sectors are already members of the organization. Their goal is to educate the public with regard to RFID and its applications. Its founding members include VW, Henkel, DHL, SAP and the METRO Group. The forum is based in Berlin and coordinates contacts to the German political arena and the media as well as to consumers and other organizations. The editorial staff talked to the managing director, Dr. Andrea Huber, about the tasks and objectives of the Informationsforum RFID.



Dr. Huber, Radio Frequency Identification is considered a technology of the future that offers numerous benefits to both the economy and consumers. However, only 15 percent of the German population have an idea what the abbreviation RFID stands for. What will you do to increase awareness of the technology?

We will predominantly inform the public on the function and potential of the technology. On our website and at various events, we will report on new developments and applications of RFID in different industries. Specific case studies communicate the potential of the technology for the people and Germany as a business location. We do not view communication as a one-way street. Instead, we are actively seeking to communicate with various interest groups, because one thing is certain: for RFID to prevail in the market, the technology must be accepted by society.

There are certain groups that view the technology very critically. How do you handle that?

The Informationsforum RFID provides a platform for an exchange between business, politics and science as well as the media and interested consumers. We also wish to address the critical aspects and discuss them on a neutral level. In addition, we promote research in order to create a more factual basis for discussions.

Time and again, data privacy and consumer protection are addressed in connection with RFID. Some of the critics even demand stricter laws. What do you think?

In Germany, we already have very effective data privacy legislation. The use of RFID is at the start of a long path, and I believe it makes no sense to think about stricter legislation on the basis of pilot projects. During the discussion, it is frequently overlooked that most applications do not have any bearing on the consumer. Currently, the companies predominantly use RFID in warehouse management and logistics. Therefore, I am advocating a differentiated consideration when assessing new technologies. The Informationsforum RFID will also strongly work on this issue.

So far, Germany and Europe are in the lead regarding the development and application of the technology. But the United States also works at full speed to develop new applications. Is our leadership position at risk?

I don't think so. Just one look at the members of the Informationsforum RFID shows that significant pioneers in this field come from Germany: Professor Dr. Michael ten Hompel from the Fraunhofer Institute for Material Flow and Logistics, the Chairman of our Management Board, is an internationally renowned expert. He performs valuable pioneering work in the continued development of RFID in logistics. The METRO Group is one of the first retail companies worldwide to use RFID for optimizing the flow of merchandise. The retail company has made a long-term commitment to the standardization of the technology. These examples show that we can remain calm when facing the international competition.

The Informationsforum RFID also sees itself as a mediator between business and politics. What exactly is your task?

RFID is used in various industries. The pioneers include companies from the retail sector, logistics and the pharmaceutical industry. New users will be able to learn from the pioneers. We offer a forum where companies can network and exchange experiences. At the same time, we combine our partners' interests, which enables us to represent them in public more effectively.

Who can become a member of the Informationsforum RFID?

All companies and institutions working with RFID. We offer regular memberships and supporting memberships: the former are designed for companies, while the latter are meant for non-business organizations such as academic institutes and research institutions.

Informationsforum RFID e. V.

Dorotheenstrasse 37 > 10117 Berlin

Tel. +49 (0) 30.20 65 81-0 > Fax +49 (0) 30.20 65 81-20

info@info-rfid.de > www.info-rfid.de



YOU ASK, WE ANSWER

Does each retail company define specific requirements for its suppliers during the introduction of RFID?

It is in the interest of the retail sector and the consumer goods industry to establish uniform standards and processes for the use of RFID. Systems with different specifications cannot communicate directly. Efficiency improvements based on RFID can only be realized in logistics, if the exchange of data proceeds smoothly. Therefore, the METRO Group collaborates with other companies from industry and the IT and retail sectors in national and international committees to create uniform standards for the application of the technology. In addition, the METRO Group has published its requirements for its industry partners regarding the roll-out of RFID.

Is it worthwhile for suppliers to convert their systems to RFID?

RFID offers enormous advantages to the manufacturers of consumer goods. Procedures throughout the process chain can be designed much more efficiently with the help of the technology, and out-of-stock situations occur less frequently. All partners involved can benefit from the resulting sales increases. In the long term, the money a company invests in RFID becomes an investment in its own competitiveness.

GS1 Germany and IBM have jointly developed a modular evaluation system which companies can use to individually determine the costs and benefits of the introduction of RFID. The so-called RFID calculator is based on Microsoft Excel and represents the

entire process chain – from the packaging supplier to the supermarket or store. Over the course of two or three weeks, companies can independently record all relevant factors. Based on this information, the GS1 calculator computes in which parts of the process chain and at what level RFID could provide efficiency increases.

Are there any examples of a successful RFID introduction that companies can use for guidance?

There is no patented solution for the introduction of RFID. Instead, based on the specific conditions in their warehouses and production facilities, suppliers should generate a customized concept that meets their expectations. For this purpose, they can use e.g. the EPC/RFID Best Practice Scorecard. In collaboration with Intel, GS1 and the METRO Group, the consulting firm Kurt Salmon Associates developed a decision-making aid for the introduction of RFID. It shows which factors companies must take into account to profitably utilize the technology. This includes strategic considerations such as a risk assessment as well as technical questions on standards or the integration into the existing infrastructure. The Best Practice Scorecard also allows companies to compare themselves to the leading users of RFID technology. This way, they can measure their own progress and adjust their strategy accordingly.

MORE INFORMATION FOR MORE TRUST

> RFID opens up new opportunities for consumer protection

Can the path of a steak be fully traced from the stable to the meat counter? What do the various quality marks stand for? Over the past few years, the information needs of consumers have increased considerably. With the help of new technologies such as RFID, the retail sector will be able to better meet this demand in the future. To examine the attitude of consumers in Germany toward the new technology, the METRO Group has commissioned the study "RFID & Privacy." Headed by Professor Dr. Oliver Günther and Dr. Sarah Spiekermann of Berlin's Humboldt University, the survey polled a total of 234 people.

From "A" as in allergens to "Z" as in zinc, today's customers want comprehensive information before making their purchasing decision. They primarily request more information on subjects such as traceability and origin control of merchandise, according to one of the results of the "RFID & Privacy" survey. In the future, customers will be able to obtain more individualized information at the point of sale with the help of Radio Frequency Identification. This is particularly advantageous for allergy or diabetes patients. Upon request, the innovative technology will generate a direct connection to additional product and process information. Customers will no longer need to access the Internet at home or use other research tools but will have the desired information handy during their shopping trip.

Great interest in RFID

Apart from more information, RFID also provides more safety for the purchase of groceries and household essentials. The technology offers even better protection from counterfeit products. In addition,



it allows reliable monitoring of best-before dates. These possibilities received positive ratings from the participants of the "RFID & Privacy" survey. However, it became apparent that there is limited knowledge of the new technology: 15 percent of the polled individuals



Prof. Dr. Oliver Günther, Humboldt University, Berlin

Today, RFID is already being used in many areas of life. Your study shows that only 15 percent of the survey participants know the technology. Why is that?

For such a new and complex technology, 15 percent is not necessarily a low value. So far, RFID has not yet noticeably changed the life of the

average consumer. I tend to see it the other way round: the fact that as many as 15 percent of the population know the term is a sign of early interest in the technology.

Many of the polled individuals appreciate the benefits of RFID, but at the same time there are reservations concerning the protection of privacy. How do you explain that?

This is not unusual either. People have difficulty weighing the potential and the possible weaknesses – especially if they don't know much about the new technology yet. The fact that various interest groups either dramatize or play down the risks of the technology contributes to this feeling of uncertainty.

What can companies do to further build trust in the technology?

Education, education and more education. The current public showdowns of the various interest groups do not help the situation. Consumer protection groups should not focus on improbable scenarios. It would be more meaningful to compare RFID-specific risks to those we already know from cellular phones or ATM cards. Companies should communicate the pros and cons equally transparently and should not hide potential risks in the fine print.

stated they had heard of Radio Frequency Identification before. At the same time, the participants showed a lively interest in the technology. On the other hand, most people have long been in contact with RFID – frequently without their knowledge. For example, modern anti-theft devices in cars work on the basis of RFID. More and more libraries also equip their check-out systems with the new technology. According to a study by BIG Research, at 41 percent, the degree of awareness of RFID in the United States is almost three times as high as in Germany.

These results reveal that there is a significant need for information and education in Germany. As the “RFID & Privacy” survey showed, German consumers frequently have concerns about RFID when it comes to the protection of personal information.

Strengthening acceptance

In view of these research results, companies that wish to tap the potential of RFID should familiarize consumers with the technology and its opportunities. The METRO Group is a leading example: at the METRO Group Future Store in Rheinberg near Duesseldorf, the practical use of RFID has been tested for more than two years. Customers have the opportunity of experiencing the benefits of the technology during their daily shopping. In addition, the METRO Group offers a free RFID Hotline and provides comprehensive information on the subject on its website at www.future-store.org.

VOICES FROM THE INDUSTRY



Monika Oßwald



[Business Logistics Manager, SCA Hygiene Products GmbH]

Since February 2005, SCA has been affixing transponders to the pallets delivered to Metro Cash & Carry. What is your first interim conclusion?

The technology works! Our experience from this pilot project shows that RFID can be introduced quickly and without any starting difficulties worth mentioning. The required hardware is available in the market. The joint evaluation with our project partner, Metro Cash & Carry, will begin this fall. Only then will we be able to judge what potential the technology opens up throughout the process chain.

It only took your company seven weeks to introduce this new technology. How did you do it in such a short time?

It was certainly an advantage that SCA already had comprehensive knowledge on RFID. Since 1995, we have been using the technology in parts of our process chain, for example, special transport containers (the so-called cassettes) are tagged with RFID transponders in northern Sweden. Under the extreme local climate conditions, RFID is clearly superior to barcode technology. The cassettes are moved by huge tractors, which requires robust and equally precise labeling. For the project with Metro Cash & Carry, we have defined clear objectives regarding the project scope and schedule. We have worked toward this goal in close coordination with Metro Cash & Carry and Siemens, our technology partner. Another advantage is our interdisciplinary project team consisting of colleagues from the fields of IT, logistics, production and distribution. Under these conditions, the roll-out was easily completed in seven weeks.

What other development steps have been planned by SCA with regard to RFID?

We will decide our future steps based on the evaluation of our pilot project. Of course, we will also examine internally which processes we could improve based on the technology. We are certain that RFID will replace the barcode in many areas of the paper industry as early as during the next five years.

TRADE FAIRS AND CONVENTIONS

23rd "Dortmunder Gespräche"

September 13 to 14, 2005 _ Dortmund

"Dortmunder Gespräche" is Germany's oldest logistics conference. At the same time and location, the "warehouse logistics" convention also takes place for the third time and the Fraunhofer Society will hold a symposium focusing on RFID. Participants have the opportunity to freely choose between the three events.

Fraunhofer Institute for Material Flow and Logistics (IML)
www.do-ge.de

Smart Labels Europe

September 19 to 22, 2005 _ Cambridge, UK

The practical use of RFID takes center stage during this three-day event. Users, e.g. from the pharmaceutical industry, the retail sector and the consumer goods industry, will report on their experience with the technology: what requirements do they have regarding the technology and processes?

IDTechEx
www.idtechex.com/smartlabelseurope05/en/index.asp

RFID Journal Live! Europe

October 10 to 12, 2005 _ Amsterdam

For the first time, the American trade publication RFID Journal will organize its own conference in Europe. The first day of the event is aimed at novices, who can attend the conference to obtain basic knowledge on RFID in a compact format. In addition, the agenda includes practical examples and economic efficiency considerations.

RFID Journal
www.rfidjournallive.com/europe

22nd German Logistics Congress

October 19 to 21, 2005 _ Berlin

This convention is considered an important industry meeting. Lectures on trends and innovations in logistics, including RFID, will provide insight into the future of freight traffic. The winners of the "German Logistics Award" and the "German Science Award for Logistics" will also be announced during the event.

Bundesvereinigung Logistik e. V.
www.bvl.de/361_2

PUBLIC DEBATE

Schily: a clear commitment to RFID

At a symposium in Berlin on the subject of "Computers in our everyday lives – opportunities for Germany?" in July 2005, the German Minister of the Interior, Otto Schily, made a clear commitment to the advantages of Radio Frequency Identification. During his keynote address in front of representatives from business and science, Schily named RFID as a core competence of the German IT industry and encouraged German companies to safeguard their competitive advantage in the field of so-called "smart environments." "Smart everyday objects as well as logistic systems based on RFID are key technologies that can reap considerable benefits for the economy today," the



German minister of the interior said. Examples of innovative applications mentioned by the SPD politician include the use of RFID technology in the consumer goods industry, in the mail order business and in the pharmaceutical industry. Schily confirmed once again that starting on November 1, 2005, the new German passports (ePass) will include an RFID transponder that will store biometric information. In conclusion, Schily said: "I will advocate this new, intelligent technology – for reasons of security, technology and economic policy."

WHO DOES THE FUTURE BELONG TO?

> “RFID – status quo and future prospects in Germany,” a survey conducted by International Data Group, IDC

The current discussion on the opportunities afforded by Radio Frequency Identification in Germany is defined by two positions: on the one hand, companies expect RFID to have the potential to replace barcode technology in product labeling. On the other hand, many companies are hesitant when it comes to introducing RFID into their own operations. This is the result of a survey conducted by International Data Group (IDC) Germany among a total of 669 companies. The authors of the survey focused on the manufacturing industry and the transportation, logistics and retail sectors. Almost all of the companies contacted for the survey are currently utilizing barcode technologies for product identification.

The pioneers

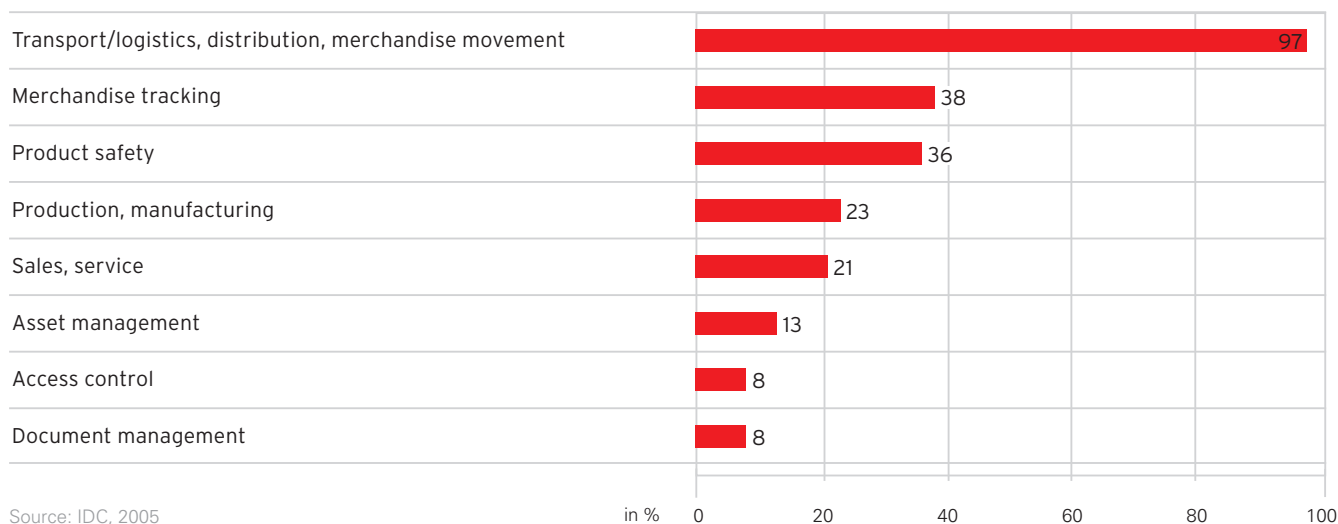
Nine percent of the polled companies already decided to introduce RFID technology. These “early adopters” or pioneers are predominantly large, internationally active companies. The authors attribute this to the fact that large companies in particular are able to make the financial and human resources available to test new technologies. During the use of RFID, 97 percent of early adopters focus on distribution, transportation, logistics and merchandise movements. Frequently, not just internal corporate departments but external offices are also involved in these processes. In this context, companies should also take into account the potential of the technology with regard to merchandise traceability for their planning processes.

Underscoring added value

Twenty-two percent of the polled companies have investigated the potential of the technology for their company and decided against the introduction. They listed the following reasons:

- The offerings in the market are not yet mature
- The investment would be too high
- The added value for the company was not apparent

RFID applications



Source: IDC, 2005



A summary of the study can be ordered at www.idc.com/germany/about/presse_rfid.jsp.

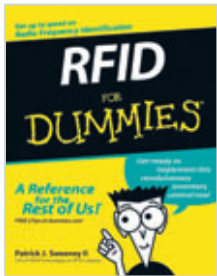
The authors of the survey assume that these weaknesses will be remedied as soon as the development of the technology has progressed further. “In light of this situation, we expect the market to develop dynamically,” said Martin Haas, Consulting Director and Project Manager at IDC in Frankfurt. However, the providers of RFID system components should take the companies’ guarded attitude seriously. The advantages of the technology and the added value for the companies must be clearly recognizable.

Haas recommends evaluating what is technologically feasible in clear-cut pilot projects. “Since the technology usually also touches on processes, companies should involve external specialists for support to avoid decisions made by people who are blind to the company’s shortcomings.”

READ MORE

> RFID for Dummies

The successful concept of the popular "For Dummies" US book series is based on presenting complex facts in a clear and easily understandable manner without being trivial. The titles cover many different areas of life but focus on technical subjects in particular. "RFID for Dummies," too, is primarily written for users and not for experts. Author Patrick Sweeney is the managing director of a company specializing in RFID and therefore has the necessary expert knowledge. In great detail, he explains the underlying physics and the prerequisites for the successful use of RFID in the corporate world. The book provides additional services in the form of a glossary and "The Part of Tens," which is typical for this book series: lists of the ten most important manufacturers, websites, tips and standards.



Patrick J. Sweeney

Wiley Publishing, Inc., Indianapolis

> RFID – Applications, Security, and Privacy



Simson Garfinkel,
Beth Rosenberg (editors)

Pearson Education

In November 2003, American IT expert and author Simson Garfinkel held a workshop on RFID and privacy at the Massachusetts Institute of Technology (MIT). The presentations given there by businesspeople, scientists and consumer protection experts are now available in an updated and expanded edition. The resulting collection, "RFID – Applications, Security, and Privacy," describes the technology behind Radio Frequency Identification and its applications in logistics, the pharmaceutical industry and other areas. Contributing authors also delineate the privacy issues raised by RFID, and discuss technical solutions to these concerns. Users of the technology, like Sandy Hughes, Global Privacy Executive at Procter & Gamble, describe how they approach privacy in connection with RFID. With this book, Garfinkel and co-editor Beth Rosenberg bring the positions of the different interest groups together in one place for the first time.

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EDITOR

METRO AG > Petra Rob, Antonia Voerste
Schlueterstrasse 1 > 40235 Duesseldorf

CONCEPT, EDITING AND DESIGN

Pleon KohtesKlewes GmbH, Duesseldorf

PHOTOS

dpa, METRO AG

HOTLINE > + 49 (0)2 11.68 86-20 04

RFID@METRO.DE

WWW.FUTURE-STORE.ORG