

# RFID



Dear readers,

It has been only three years since the METRO Group announced the roll-out of RFID along the supply chain. During this time, we have not just succeeded in advancing the development and application of a future-oriented technology. Together with our industry partners, we have also convinced the skeptics of the benefits of Radio Frequency Identification. Numerous pilot projects are currently under way during which companies from various industries probe the potential of RFID for their processes.



Even if that means that the RFID roll-out is well on its way, we must not forget that we are still performing pioneering work. Whoever expects short-term success in this area hasn't understood how innovation works today. Stamina and strong partners in the business, scientific and political arena are indispensable. In this respect, it is a great success that the German government recently emphasized the significance of RFID in its Potsdam Initiative. The government's decision to support the technology in the future is an important signal, especially in light of the German EU council presidency.

We succeeded in internationally advertising RFID with our presentation at the China Chain Store Expo trade fair in Beijing in November 2006. For more information, please read our cover story. Furthermore, we were able to win Mark Roberti, publisher of the renowned RFID Journal, as a guest author for this issue. He describes why pioneers of technology are usually at an advantage.

We hope you enjoy your reading.  
Yours truly,

Zygmunt Mierdorf  
Member of the Management Board of METRO Group

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**METRO Group**  
Future Store Initiative



## PREMIERE IN BEIJING

**THE METRO GROUP PRESENTED RFID TECHNOLOGY IN CHINA** In November 2006, the METRO Group participated in the China Chain Store Expo for the first time. As a platform for new technologies and products, the retail fair brought together suppliers and retailers from all over the world. More than 12,000 guests visited the joint trade fair booth of Metro Cash & Carry, the METRO Group Future Store Initiative and 13 of its partners. Radio Frequency Identification (RFID) took center stage.

The METRO Group and its partners presented themselves to the Chinese trade audience in an area of more than 1,200 square meters with the goal of publicizing RFID in China and to demonstrate the benefits of the technology. For this purpose, the exhibit space was divided into several subject areas. Within the individual areas, numerous interactive exhibits illustrated the benefits of RFID for manufacturers, transportation service providers, retail companies and consumers.

### Trade fair presence with many highlights

In the "Supply Chain" area, visitors experienced how RFID can be used profitably along the entire supply chain – from production to the stores' warehouse. For example, by means of an RFID gate, the trade fair attendees were able to see how merchandise shipments equipped with RFID transponders can be registered and automa-

tically reconciled with the order in a matter of seconds. Exhibits such as the so-called pick-by-voice system showed how RFID also makes the compilation of deliveries more efficient.

Service can also be optimized with RFID, which the trade fair visitors were able to see at the so-called "Future Mall": The Smart Dressing Room provides advice on the combination of garments and the Smart Shelf gives an early warning if stocks run low.

A pathway highlighting quality and hygiene at Metro Cash & Carry, a communications platform with numerous opportunities to obtain information and the trade fair booths of the partners of the METRO Group Future Store rounded out the diverse and informative trade fair presence.

### RFID in China

The use of RFID in China primarily focuses on areas outside of the retail sector and logistics. This mainly has two reasons: On the one hand, there is no uniform frequency allocation or technical standard for RFID so far. On the other hand, many providers lack the knowledge and experience in developing, manufacturing and using transponders and readers. Especially for RFID applications in the UHF range, the Chinese industry is still in the starting phase. However, this will change in the foreseeable future: The Chinese government strongly supports RFID technology and encourages companies to invest in the development and production of RFID hardware and software.

RFID is already being used successfully for the following applications in China:

- Since 2005, the new Chinese identification cards are equipped with RFID transponders. Numerically, this project represents the largest application of the technology worldwide.
- The airline Cathay Pacific uses RFID to label baggage on its flights between Beijing and Hong Kong.
- The Chinese postal authority in Shanghai tags select packages with RFID.
- Hong Kong uses RFID in local public transportation.



Page 2: The trade fair booth of the METRO Group and its partners attracted large crowds at China Chain Store Expo 2006. Dr. Hans-Joachim Körber welcomed high-ranking representatives from politics and business.

Page 3: The METRO Group Future Store Initiative and Metro Cash & Carry presented themselves on more than 1,200 square meters of exhibition space.

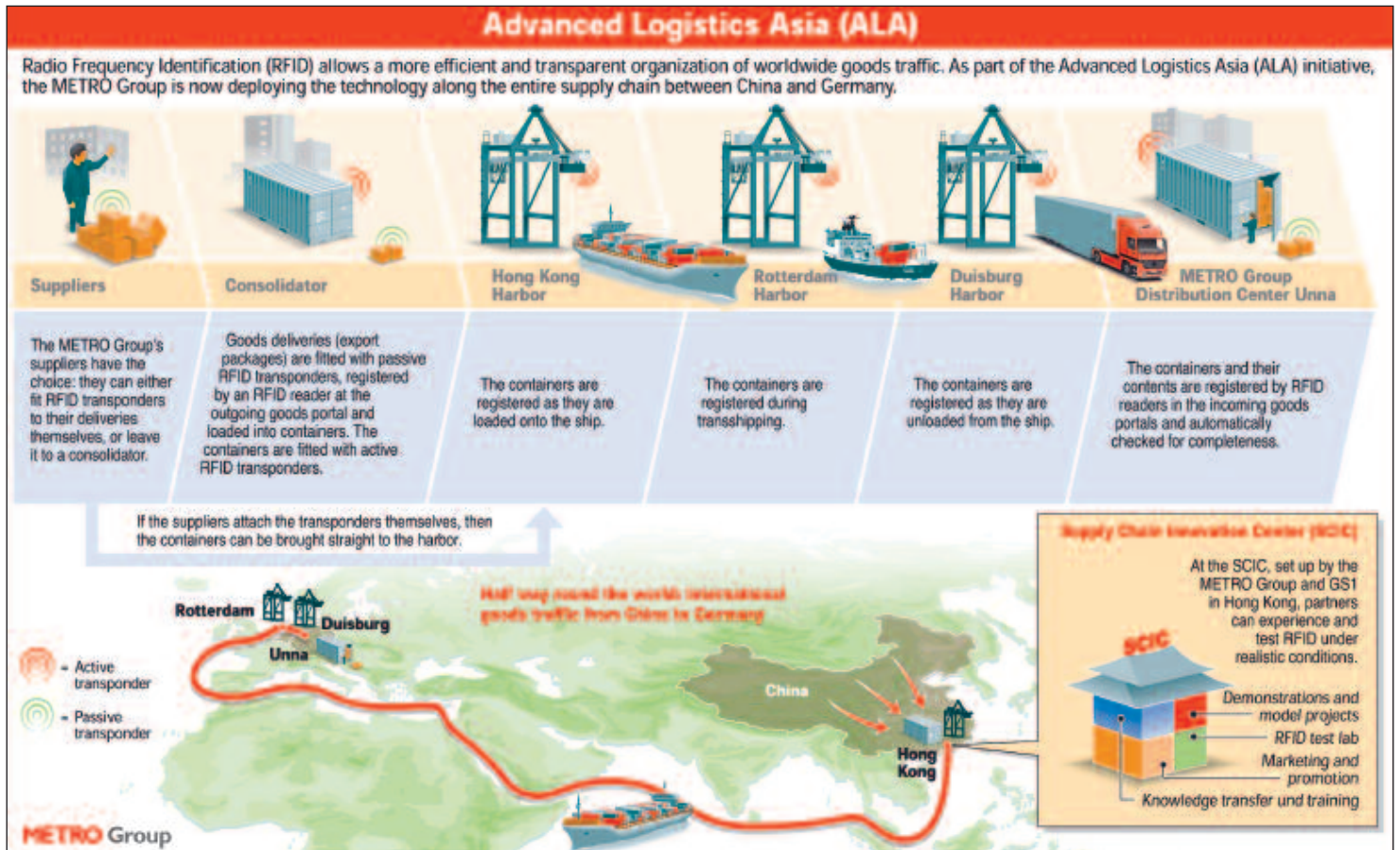
**Networking at the highest level**

China Chain Store Expo offered many opportunities for intensifying existing contacts and for making new ones. About one-third of the visitors came from business or corporate management. The social program also provided a platform for renowned decision-makers. At the RFID evening event, Zygmunt Mierdorf, member of the Management Board of the METRO Group; Chris Adcock, President of EPCglobal; and Dr. Jorgo Chatzimarkakis, member of the European Parliament, discussed the potential of RFID for commerce between Europe and Asia. Dr. Hans-Joachim Körber, Chairman and CEO of the METRO Group, used the fair for an exchange with high-ranking

government officials and to confirm the retailer’s commitments in China.

**Growing Chinese market**

“Asia and especially China with its 1.3 billion consumers are among our most important markets for expansion,” Körber said in Beijing. In light of this situation, he announced the opening of up to ten Metro Cash & Carry wholesale stores per year in China. The world market leader in self-service wholesale has maintained a presence in China for ten years already and operates 34 stores nationwide.



But China is not just interesting as a sales market. A large variety of manufacturing and delivery processes begin there as well. For the METRO Group, the country is the largest procurement market on the Asian continent: About two-thirds of all goods imported from Asia come from China. The METRO Group takes this enormous significance into consideration with its Advanced Logistics Asia (ALA) program. With ALA, the company introduces RFID technology along the supply chain between China and Germany. In various pilot projects and test scenarios, the METRO Group examines how RFID can make the flow of goods more efficient and transparent. The METRO Group has started to tag deliveries and containers with RFID transponders already in China. The passive transponders of the export packages facilitate quick and error-free merchandise management. The active RFID transponders with which the transport containers are tagged can also be read in the ports along the supply chain and allow locating each individual container. This way, RFID provides not just more speed in worldwide goods traffic but also helps trace the path of transportation without gaps.

### Supply Chain Innovation Center (SCIC)

To ensure the knowledge transfer between the retail sector and Chinese manufacturers, the standardization organization GS1 and the METRO Group have jointly established the Supply Chain Innovation Center (SCIC) in Hong Kong. Here, the partner companies can familiarize themselves with and test RFID technology under real-life conditions.

The SCIC offers:

- Demonstrations and model projects
- RFID testing laboratory
- Marketing and promotions
- Knowledge transfer and training seminars

### Voices about the trade fair

“China will play a key role in the future use of RFID technology. It is for this reason that the METRO Group presented itself with its largest trade fair presence outside of Germany so far. The entirely positive media coverage and the very good visitors’ response confirmed us in our decision to participate in China Chain Store Expo for the first time. The trade fair was a great success.”

**Dieter Licht, Head of ECR at the METRO Group**

“EPCglobal is a longstanding partner of the METRO Group. For us, it was important to jointly convince potential Chinese partners of the benefits of RFID technology. In addition, we were able to show that we have a strong international network with local contacts. GS1 Hong Kong and GS1 China were present on site, intensified contacts to Chinese retailers and suppliers and presented our EPC network.”

**Chris Adcock, President of EPCglobal**

“As a global logistics service provider, we wanted to meet retailers and suppliers from all over the world at China Chain Store Expo. In this respect, the fair was sheer networking. We have demonstrated our regional presence and honed our international profile. Furthermore, it was important to present our

company and our product portfolio, e.g. RFID-based transport services.”

**Andreas Kruse, Director Industry Standards at DHL Exel Supply Chain**

“In China, Siemens is appreciated as an innovative technology supplier. This is why we used China Chain Store Expo as an opportunity for presenting our RFID system SIMATIC RF600. The comprehensive media and TV coverage generated a broad interest in our trade fair presence. Our local staff also used the opportunity to make promising contacts – including numerous suppliers of the METRO Group.”

**Peter Kohnen, Industry Manager Retail of Siemens AG**

“For Bizerba, the participation in China Chain Store Expo was an important milestone. On the one hand, we were able to show the technologies and applications jointly developed with the METRO Group in the Asian market. On the other hand, it was a unique opportunity to present our company and its diverse solutions to a broad circle of interested individuals.”

**Joachim Zeiler, Sales Director Germany Retail of Bizerba GmbH & Co. KG**

# RFID COMPACT

## >> License to seal

Siemens Business Services (SBS) has developed an RFID seal that can be used to safely seal containers. A transponder stores the information when where and by whom a shipment was sealed. The chip also registers any unauthorized breaking of the seal, recording the time when the breaking occurred. Previously, logistics companies had to write down the number of non-reusable seals on the freight document, which is an error-prone process. Errors also frequently occur during control at the logistics center and before unloading. The new RFID seals accelerate and simplify the process.

## >> Smart Card for city residents

On the West Coast of South Korea – about 60 kilometers south of Seoul – the city of New Songdo is being constructed on an artificial island. By 2016, New Songdo will be inhabited by about 65,000 people, and about 300,000 individuals will work there. The first residents will probably move into their apartments as early as 2009. What is special about New Songdo is that all residents will be provided with a so-called Smart Card with an RFID transponder. Among others, the Smart Card will serve as a house key as well as a ticket for the subway, the park and movie theaters. In addition, transponders on reusable beverage bottles will make it easier to return deposits: A reader within the container recognizes whether the consumer has correctly returned the empty bottles; then the deposit value is credited to the Smart Card holder.

## >> Premiere with RFID

In the future, the Premiere pay TV station will tag its receivers with RFID transponders. The information regarding the delivery status will converge in a central IT system. This way, the transport path of the devices can be completely traced at all times. RFID also makes stocktaking easier at the central warehouse: In the future, employees will no longer need to scan the barcode of each individual receiver. Instead, RFID readers will register up to 80 transponders within just a few seconds.

## >> Education on the Internet

Those who do not yet know the numerous applications of RFID can now obtain information at [www.rfidabc.de](http://www.rfidabc.de). The website developed by the RFID Information Forum presents RFID applications that are already making people's everyday lives easier. In addition, interested consumers can find examples of future applications for the technology. A separate section is devoted to the topic of data privacy. It is the objective of the new Internet portal to educate consumers about RFID and to encourage them to actively deal with the technology.



## >> IT initiative in Potsdam

As part of its high-tech strategy, the German government intends to establish a centralized dialog platform for RFID to optimally coordinate the research and support of the technology in the future. This was indicated by the concluding declaration for the first national information technology summit, which took place in Potsdam on December 16, 2006. According to the declaration, the government will provide a total of 280 million euros in financial support for three so-called lighthouse projects – innovative applications that also include the "Internet of things." Furthermore, the German government will organize a European RFID conference in June 24–25, 2007 as part of its EU council presidency.

## >> Greater productivity in notebook production

Since September 2006, Toshiba Europe GmbH has been using RFID to increase productivity at its Regensburg production facility. The packaging of the computers is tagged with transponders. When being delivered to the factory, the employees automatically register the devices before they are warehoused. In contrast to manual scanning, the notebooks can be delivered immediately without requiring any further steps. This way, up to 15,000 devices can be handled every day, 57 percent more than before the introduction of the technology. This makes the project one of the most comprehensive second-generation RFID applications in Europe.

# "MY HOUSE IS SMART"

> Interview with Klaus Scherer, Head of the inHaus Intelligent House Innovation Center of Fraunhofer-Gesellschaft and the Systems and Application Technology department, and Dr. Gerd vom Bögel, Group Head for Multifunctional Transponder Systems at the Fraunhofer Institute for Microelectronic Circuits and Systems (IMS).

Houses that make the lives of their residents easier - what was no more than a vision 20 years ago has become reality. This is due to the engineers and scientists who develop networked technologies for buildings. The Fraunhofer-Gesellschaft is also concerned with the so-called Smart Houses and has been operating the Intelligent House Innovation Center (inHaus for short) in Duisburg since 2001. The Fraunhofer researchers examine how residential as well as commercial properties can be optimized with regard to operating processes and applications. The editors spoke with Dipl.-Ing. Klaus Scherer (left), one of the initiators and Director of the inHaus Center, and Dr.-Ing. Gerd vom Bögel (right), specialist for transponder systems and RFID.



## Mr. Scherer, your work is concerned with smart room and building systems. Can you tell us about these new technologies?

**Scherer:** We develop innovative applications in electronic and information technology and test to what extent they can support people in the residential and household settings. There are many parallels to the automotive industry: Modern passenger cars have countless functions that save energy, assist the driver and contribute to his or her safety. Similarly helpful technology solutions are also possible within one's own four walls.

### For example?

**Scherer:** Modern broadband connections, for example, are suitable for telephony, Internet surfing and TV reception. But that alone is nothing unusual. In emergencies, smoke detectors with temperature sensors or emergency call systems for senior citizens can use the same data line to alarm the firefighters or the paramedics.

### By doing so, wouldn't we give up a lot of control?

**Scherer:** It is always at the discretion of the individual what tasks he or she leaves to technology. However, the benefits are certainly undisputed when it comes to saving energy. After all, who wants to lower the heater settings all the time when leaving the room or opening a window? A smart system that recognizes when a room is used and sets the temperatures automatically will save up to 30 percent in gas or heating oil.

### Do you also use RFID at inHaus?

**Vom Bögel:** Yes, in multiple ways, e.g. for access control. In addition, we use the technology to control various living scenarios. Similarly as for cars where personalized seat settings can be accessed, inHaus residents can use a chip card to adjust heater settings, lighting or TV to specific situations or needs.

### In the future, some products will likely also be tagged with Smart Chips. Has that already been considered for inHaus?

**Vom Bögel:** We installed technology that is based on this future scenario. In the kitchen, for example, inventory levels can be queried and electronic shopping lists can be forwarded to a mobile phone or

delivery service. For high-quality goods such as pharmaceuticals, companies are already using RFID. inHaus also has applications for this purpose, such as the pharmaceutical delivery box in front of the entrance and the Smart Bathroom Cabinet. The interaction of both ensures the correct administration of medication and an automatic inventory and supply management. An expansion of this pilot project is possible anytime.

### What will the inHaus2 project be about?

**Scherer:** In contrast to inHaus1, which focused predominantly on private residences, inHaus2 will be concerned with commercial properties beginning in 2007: hotels, hospitals or nursing homes and offices. For example, hospital staff can electronically document services and treatment steps, thereby saving a lot of time. Especially with regard to nursing care for senior citizens, there is a considerable need for assistance functions. A scaled system of safety functions and services will make it possible for them to live more independently despite physical limitations.

### What is the status regarding commercial exploitation?

**Scherer:** Smart House technologies have been in practice for several years. In Germany, our spin-off company inHaus GmbH has already realized more than 100 inHaus real estate properties. This includes 24 apartments for senior citizens in Bochum, 80 service apartments in Hattingen, nursing homes and a group living facility for dementia patients. The applications are intended to prevent the residents from suffering or causing any harm. For example, running water in the shower automatically shuts off after three minutes.

### One final question: How much technology do you have at home?

**Scherer:** I have a networked heating system and a networked multimedia system ...

**Vom Bögel:** At my home, a central computer controls the lights and the roller shades dependent on time as well as dawn and twilight. The heating system automatically reduces its output if nobody is in the house. In the corridor, a little lamp shows whether any windows are open. In addition, I can access music from several media servers. As a result, I already have a Smart House with intelligent functions.



## YOU ASK, WE ANSWER

**Since August, the METRO Group has been testing RFID on retail cartons at Real and at the Future Store in Rheinberg. Are there any initial results? And what do the next steps look like?**

So far, the results are very promising. The reading rates in the pilot project of MGL Unna and the Future Store have been consistently above 90 percent for mixed pallets. This is significantly better than expected. Over the course of the year, the METRO Group will integrate additional process steps such as handheld applications into the pilot project. Of course, we will also work to further improve the results. We assume that the reading rate will continue at a constant level of more than 95 percent. However, the pilot project clearly shows that the actual challenges lie in changing established work processes.

**EPC Class 1/Gen. 2 has solved the problems in reading objects with liquid contents. However, metallic surfaces continue to be difficult. Are there any new approaches in this respect?**

There is a variety of very different approaches for metallic products. For example, UHF near-field applications are relatively insensitive to reflective surfaces. The disadvantage of this solution is that the reading range is very small. An acceptable reading range can be achieved with specially developed RFID transponders for metallic surfaces. So far, these solutions have been more costly than average transponders. However, it may be assumed that greater production quantities will lower prices.

**What is the so-called "sweet spot"?**

The "sweet spot" describes the area on a pallet or box in which RFID transponders can optimally receive electromagnetic waves. The best reading rates are achieved there. The guidelines for the RFID roll-out at the METRO Group provide suppliers with general information on how they can determine the best spot for affixing the transponders. The brochure is available as a PDF file and can be ordered from the METRO Group RFID Competence Team ([rfid@metro.de](mailto:rfid@metro.de)). In addition, companies can contact the European EPC Competence Center (EECC) at [epc@eecc.info](mailto:epc@eecc.info). The listed tests provide information where on various objects the transponder must be placed to obtain optimal results.

**Where can suppliers find the EDI portal?**

In October of 2006, the METRO Group integrated the EDI portal into the Metro Link supplier portal. The online platform combines various applications under a single roof: Apart from the Electronic Data Interchange (EDI), this also includes e.g. the Data Warehouse database, which facilitates a quick, daily updated overview of all important indicators such as sales and revenue. The advantage of Metro Link for the suppliers is that they only have to register once to be able to use the offered information and services. Due to the clear-cut structure and the convenient user interface, handling is particularly simple. To access the centralized supplier portal, go to [www.metro-link.com](http://www.metro-link.com).

# THE METRO GROUP LEADS THE WAY

> Guest feature by Mark Roberti, publisher of the RFID Journal

**Many European companies are still hesitant to introduce RFID in their process or to implement pilot projects. According to Mark Roberti, this reserved attitude is surprising because the technology has made significant progress in recent years. Pioneers such as the METRO Group already benefit from using Radio Frequency Identification in their process chains.**

When I see how individual industries or companies handle innovative technologies, I am often amazed. One good example is the use of Radio Frequency Identification in the consumer goods industry. Many European companies have a clear opinion on this subject. Time and again, I hear statements such as “The Electronic Product Code is not yet ready for comprehensive application,” “UHF technology doesn’t optimally work yet in Europe” or “We’ll wait until the technology is fully developed.” The METRO Group is very different in this respect. One of the world’s largest retailers, the company invests time, money and key resources to use RFID along the supply chain.

One has to ask why decision-makers have such different attitudes toward the same technology in the same region and the same industry? Sure, each company is unique, and so it may not come as a surprise that the managers in charge judge RFID and other new technologies on an individual basis. Nevertheless, it appears as if the METRO Group knows more than others. Or maybe I should phrase it like this: The METRO Group handles RFID much more openly and more competently than many of its competitors.

## The early bird catches the worm

Almost all large companies in Europe and worldwide assume that RFID will play an important role in the future. However, most of them are also convinced that they will not lose any competitive edge, if they introduce the technology one or two years later than their competitors. The METRO Group, on the other hand, has understood that it is beneficial to be one of the pioneers in the application of RFID, since investments in RFID will sustainably optimize the company’s supply chain in the years to come. A study by the company has shown that, based on the use of the technology on pallets at Real and Metro Cash & Carry, the METRO Group can already save more than 8.5 million euros today in Germany alone. Even more significant cost savings are derived from the use of the technology on cartons.

In the United States, Wal-Mart also intensively deals with the potential RFID offers to retailers. Just like the METRO Group, the corporation experiments with new applications. Both collaborate closely with manufacturers to develop new standards for RFID readers and new, more effective transponders. They will be among the first to record crucial improvements in their logistic chains. And as quickly as their competitors may try to catch up with regard to RFID, the pioneers will always be one step ahead.

## There are image benefits as well

While considerable efficiency increases in the logistic chain may still be a long way off, the METRO Group has already achieved one thing with RFID today: The use of the innovative technology has a positive impact on the company’s image. Television programs in all of Europe report on the commitment of the company, journalists all over the world address its pioneering work. The great public attention makes it possible for the METRO Group to position itself as a truly global retailer. After all, the use of RFID enhances customer loyalty, since the technology optimizes the shopping experience. One aspect that shouldn’t be underestimated in this respect is timing, because it makes a big difference whether a company communicates to its customers, “You are important to us. We would like to optimize our supermarkets and stores for you. Therefore, we are investing in this new technology” or whether the statement is: “You are important to us, which is why we adopt the technology that others have been using for the benefit of their customers for years.”

## Optimized technology - decreasing prices

Obviously, not all companies have a comprehensive view yet with regard to RFID, but more and more companies are at least dealing with the technology. And this technology has made great progress – products based on the second generation of the EPCglobal standards perform significantly better than their first-generation counterparts. Accordingly, companies in the United States, Europe and Asia are convinced that reading rates no longer represent a substantial hurdle during the introduction of RFID.

Another argument in favor of RFID: Prices for transponders have gone down considerably. Manufacturers such as Avery Dennison and RSI ID Technologies offer RFID inlays – i.e. transponders that have not yet been inserted into labels – for less than ten U.S. cents a piece. In view of this price, analysts believe that use of the technology on individual items is already worthwhile starting at a retail price of 15 U.S. dollars. Furthermore, they expect that prices for readers will also decrease fast once the manufacturers switch to microchips, because they can be mass-produced cost-effectively.



# VOICES FROM THE INDUSTRY

## A technology on the advance

Just one year ago, many people had doubts that the use of RFID would amortize. Today, the RFID Journal continuously reports on companies in various industries that developed new and innovative applications for this technology. Accelerated customer payments, optimized delivery precision or improved merchandise availability are just a few examples. Pioneers such as the METRO Group show the way to others: They advance the establishment of standards, increase the public's familiarity with the technology and prove that RFID is not a short-lived gimmick but provides companies with permanent benefits.

Mark Roberti is the founder and editor of the RFID Journal, the leading magazine and website on RFID technology and its many diverse applications.



Jörg Plumanns



[Sales Manager, BEA SA]

### What is BEA concerned with?

For 40 years, BEA has been developing and manufacturing motion and presence detectors for automatic doors and industrial gates. Our products are marked by their dependability in registration, durability and low outage rates.

### The sensors produced by your company play an important role in using RFID technology, don't they?

Yes, they activate the readers on the RFID portals. What's special about this is that they only do this when an object actually passes through the portal in the expected direction. The device will ignore any other motions in the environment of the portal.

### For the METRO Group, you have designed a special sensor that controls the RFID portals in incoming and outgoing goods. What is special about them?

It is a combination sensor that combines the advantages of radar and infrared. Radar is ideally suited for registering motion and direction of movement, and infrared allows the precise switching of readers. Based on the combination of both signals, undesired reading processes can be reduced to a minimum. This is an important aspect, especially for several RFID portals operated in parallel, since interference between the devices can be minimized. In addition, the data volume and energy consumption can be significantly reduced.

### From your point of view, can RFID systems be made even more efficient? What can we learn from them?

The industry's interest in specific RFID projects continues to grow. As a consequence, the number of installed readers is growing, so that optimal process control is increasingly becoming a critical factor for success. Problems that arise during the simultaneous operation of multiple readers and cannot be foreseen during the pilot phase can be mitigated with optimally adjusted motion detectors. With its expertise in this field, BEA can make a contribution to efficient RFID systems.

## TRADE FAIRS AND CONVENTIONS

### Upcoming events

#### EuroCIS

February 27 to March 1, 2007 \_ Düsseldorf

The spectrum of topics at EuroCIS 2007 ranges from cash register systems, PoS technologies and anti-theft systems to merchandise management systems and supply chain management. The trade fair focuses on innovations from the fields of IT and security technologies for the retail sector and the manufacturing industry. This year, about 200 exhibitors will present their products and services. For the first time, the organizers will devote an entire trade fair day (February 28) to medium-sized businesses.

EuroCIS  
www.eurocis.com

#### Workshop of the EDI User Group Trade

February 28, 2007 \_ Hamburg

In an EDI User Group, leading German retail companies develop standardized formats for the Electronic Data Interchange (EDI) with their industry partners. The working group regularly organizes workshops for suppliers. The next workshop will focus on the DESADV message standard and the SSCC (Serial Shipping Container Code) numbering system. Further workshops will probably be held in April, September and November.

EDI User Group Trade  
www.edi-ak-handel.de

### Past events

#### Fruit Logistica

Sensitive fresh products such as fruits and vegetables represent special challenges for logistics experts. At Fruit Logistica, February 8 to 10, visitors could therefore obtain information not just on the latest products in international fresh fruit retailing but also on technological applications that simplify merchandise transport.

Fruit Logistica  
www.fruitlogistica.de

#### ST (Information Society Technology) Conference

From 2007 to 2013, the European Union will provide about nine million euros in research grants for the field of information and communication technologies. This is planned by the EU's Seventh Framework Programme for Research Support, the initial details of which were presented at IST 2006. According to the program, smart technologies as well as new applications in the health care sector will be supported.

IST 2006  
[http://europa.eu.int/information\\_society/istevent/2006/index\\_en.htm](http://europa.eu.int/information_society/istevent/2006/index_en.htm)

#### St. Nicholas' Day reception of the HDE and the METRO Group

The Chief Association of the German Retail Sector (HDE) and the METRO Group invited guests for a St. Nicholas' Day reception at the Brussels-based state representation of Baden-Wuerttemberg on December 6, 2006. There, EU members of parliament, EU commissioners and German business representatives had an opportunity to exchange ideas and opinions and review the year 2006. Another topic of conversation were the challenges during the upcoming year.

HDE  
www.hde.de

METRO Group  
www.metrogroup.de

## PLENUM

### Increasing need for qualified personnel in the retail sector

What impacts do new technologies have on the job market and the way we work? This question was discussed by representatives from government agencies, companies and labor organizations in mid-September at the conference of the International Labour Organisation (ILO) in Geneva. Dr. Jürgen Pfister, division head for Human Resources & Social Affairs at the METRO Group and spokesman of the employers at the conference, gave a presentation on the consequences of technological progress for the retail sector. Innovative applications require highly qualified expert personnel. "Consultation and service quality is a key factor for success. This is how we can distinguish ourselves



e. g. from online commerce," said Pfister. The participating corporate representatives underscored that they intend to continue to invest in professional training and education. Pfister said, "The METRO Group, too, continuously trains its employees, thereby making an important contribution to long-term job security."

ILO is a special organization of the United Nations (UN). It develops international labor standards and supports economic developments with regard to their impacts on the workforce.

# POSITIVE GENERAL MOOD

## > 2006 RFID survey: Where is the market heading?

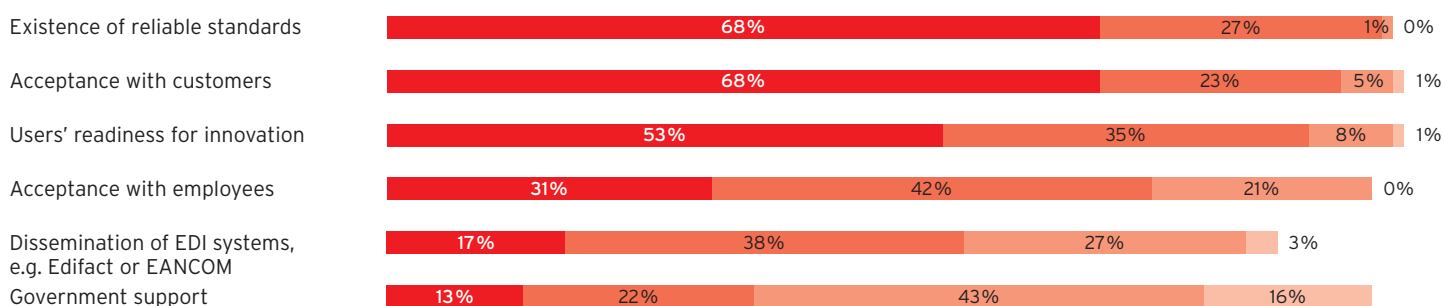
Today, one out of nine German IT companies already generates more than half of its sales with RFID-related products and services. In the future, the economic significance of the technology will further increase. Two-thirds of the companies assume that the sales share of RFID in their overall business will clearly increase over the next three years. These are the results of a survey conducted by the Dortmund-based Research Institute for Telecommunications (Forschungsinstitut für Telekommunikation – FTK) and the RFID Information Forum. For this survey, about 200 representatives from small, medium-sized and large companies were polled in September 2006, including consulting firms, hardware and software producers, and marketing service providers.

The survey also reflected the fact that RFID is currently used mainly in logistics. According to the experts' assessment, the technology will be broadly introduced on containers and pallets in the medium term. As much as one-fourth of the companies also expect that the majority of shipping boxes will be tagged with transponders in five years. According to the survey, there is considerable potential for the use of Radio Frequency Identification at the item level especially for luxury products but also for blood bottles, organ donations, pharmaceuticals, textiles, books and electronic devices.

### Standards as a factor for success

Ninety-five percent of the survey population consider the existence of dependable standards an important or very important prerequisite for expanding the use of the technology. Very important in this respect are the EPC Class 1/Gen. 2 developed by EPCglobal as well as specifications for reader interfaces, middleware and the Electronic Data Interchange (EDI). Nine out of ten companies also mentioned customer acceptance as a factor for the success of RFID. Furthermore, they said it was important that the users are prepared for innovations and that the employees accept the technology. As significant obstacles for the use of RFID, the companies mentioned high costs and a benefit that is not clearly recognizable. A lack of cooperation of the business partners along the supply chain would also have a large impact on whether RFID will succeed.

### Prerequisites for a successful broad-scale use of RFID



■ very important ■ important ■ not very important ■ not important



A summary of the results is available for downloading at [www.ftk.de/downloads/rfid/rfid-umfrage-2006.pdf](http://www.ftk.de/downloads/rfid/rfid-umfrage-2006.pdf)

### Education is required

The study also dealt with the subject of RFID and data privacy. In four out of 10 cases, the political discussion on consumer protection has no impact on the business activities of the companies. In contrast, 47 percent of the survey population have a critical view of the topic. They assume that customers will either demand greater data privacy or will be completely put off by RFID. However, the companies were largely in agreement regarding consumer education. There is a considerable need for information on RFID and data privacy. Some of the polled individuals also pointed out that politicians, lobbyists, data privacy activists and journalists should learn more about the technology.

The "2006 RFID Survey: Where is the market heading?" was generated by the Research Center for Telecommunications in Dortmund with the support of the German Industrial Association for Automatic Identification, Data Collection and Mobile Data Communications (AIM) and the RFID Information Forum.

## READ MORE

### > "Morgenmacher" - the magazine of the METRO Group Future Store Initiative

This year, the European Union celebrates its 50th anniversary. A good reason to make the continent the focus of the second issue of "Morgenmacher" magazine. The magazine is devoted to both big and small European stories. Readers learn interesting and entertaining information, e.g. on the idiosyncrasies of consumers, the everyday routines at an international school and the life of an EU member of parliament in Brussels. Furthermore, there is information about the German capital Berlin and the homepage features suggested literature for everybody who wants to know more about Europe.

So far, "Morgenmacher" – the magazine of the METRO Group Future Store Initiative – is unique in the world of retailing. It centers on people, companies and technologies committed to shape the future. Features, interviews, background reports and diverse pictorials provide readers with a view behind the scenes of the industry and open up new perspectives.

"Morgenmacher" magazine can be ordered over the Internet at [www.morgenmacher.de](http://www.morgenmacher.de). The magazine is available in German.



Morgenmacher

METRO Group, Duesseldorf, Germany

### > RFID in the Supply Chain: A Guide to Selection and Implementation



RFID in the Supply Chain:  
A Guide to Selection and Implementation  
Judith M. Myerson

Auerbach Publications: Boca Raton,  
November 2006

Radio Frequency Identification makes it possible to locate goods along the supply chain quickly and efficiently. Many companies are already using the technology for optimizing processes. In her book "RFID in the Supply Chain," IT expert Judith M. Myerson describes which factors must be taken into account for a successful application. The U.S. author first introduces the basics of supply chain management and RFID technology. Based on this introduction, she then presents practical examples from companies such as the METRO Group and SAP. Myerson points out potential obstacles in the roll-out of this wireless technology and also deals with the topic of data privacy. The book, which is available in English, is of interest for readers who have had some initial experience with RFID and are considering the introduction of the technology within their own company.

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