

RETURN

Autumn/Winter 2000

RECYCLING NEWS FROM TOMRA

INTRODUCING

SmartSort

A smarter more efficient way to sort containers and increase collection capacity in the backroom.

Market Spotlight:

Germany

The Summer 2000 Road Show

TOMRA RVMs hit the road



Helping the World Recycle!

EDITORS' CORNER

TOMRA fighting spirit

The theme for this issue of RETURN is fighting spirit, one of TOMRA's five core values. The elements that constitute TOMRA's definition of fighting spirit – including a strong inner drive, a winning attitude, and the ability to overcome adversity – are considered central to our organization's value structure and fundamental to TOMRA's success. In the Living our values section on the back cover, we have highlighted one of our colleagues who recently received the TOMRA VIP Award for excellence in displaying this TOMRA core value.

This issue contains a number of very timely and interesting articles, including an in-depth look at one of the hotbeds of TOMRA activity, Germany. With the significant developments going on in this market with regard to the proposed changes in its beverage container legislation, it was a natural choice to highlight Germany in our Market Spotlight section. We hope you will find this article informative and that it will help illuminate what potential impact the proposed new deposit legislation will have for TOMRA and the market in general.

All of us in the newsletter team would like to take this opportunity to wish you a Merry Christmas and a Happy New Year!

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Coming soon:

TOMRA's new corporate website!

Get ready for a new and improved www.tomra.com. The totally redesigned TOMRA corporate website will be launched early in the new year.

The new website will feature plenty of interesting, useful, and up-to-date information about TOMRA, all packed in a format that promises to be easier to use than our current website.

As this issue of RETURN went to press, work on the new website was near

completion. When the content on the site is fully in place, the website will go through a rigorous testing period in order to identify and resolve any potential technical issues. The test period is scheduled to begin in January, and once this has been completed, the new website will see its worldwide debut shortly thereafter.

Further information about the specific launch date will be publicized on our current website as well as communicated directly to all TOMRA employees.

TOMRA on TV

During the past year TOMRA has been highlighted in numerous television reports, including several worldwide broadcasts on the international cable networks CNN and BBC World.

The first of these international broadcasts was in January on the CNN program, Earth Matters. This broadcast featured a report on TOMRA's rePLANET recycling centers in California, providing an informative look at this new innovative concept. CNN again took a more in-depth profile of the rePLANET concept in an interview with TOMRA Global Business Development director Greg Garvey in the program Business Unusual shown on June 30, 2000. The round of international exposure was concluded with a story aired on the BBC

World program Earth Report in July. This report took a look at TOMRA's total value chain approach to recycling and how a typical Norwegian family recycles their empty beverage containers.

If you missed these programs when they were originally broadcast, you will have the opportunity to view recorded versions of them on TOMRA's new corporate website when it is launched in the beginning of next year. Until then, keep your eye out for TOMRA on TV!

Management Perspectives



The year 2000 has truly been an exciting year for TOMRA. A year in which we have witnessed the share price of TOMRA stock going from a low of 53.25 NOK (adjusted for TOMRA's stock split) in January to an all-time high of approximately 180 NOK in late November. A year in which our opportunities for growth have never looked better – no small feat considering TOMRA's track record of over 45% average annual growth during the past five years. The success of TOMRA's business concept and a growing worldwide commitment to environmental responsibility have combined to place TOMRA at the threshold of a new era in our development.

Behind this new era of opportunity lies a clear growth strategy. During the past year, the Tomra Group has placed an increased emphasis on recognizing and nurturing strategic growth initiatives around the world through a new organizational unit, Global Business Development (GBD). GBD has brought on board several key recruits in recent months who, together with the rest of our organization, will be instrumental in developing successful new market opportunities in South America, Asia, Europe, and North America. You can

read about the newest members of the GBD team later on in this issue of RETURN.

As further evidence of these efforts, TOMRA signed on November 20 a Letter of Intent forming a strategic alliance in South America with the publicly traded company Latas de Aluminio S/A (LATASA). LATASA is the largest Latin American can manufacturer and operates the most successful aluminum used beverage container collection system in this region. TOMRA and LATASA will form a new company which will run LATASA's current activities in Brazil, Chile and Argentina, and our investment of USD 28 million will give TOMRA a 70 percent ownership interest in a company that has current sales of about USD 40 million.

To help finance such initiatives, TOMRA issued a private stock placement of four million shares in September directed toward 60 institutional investors based primarily in Norway and Great Britain. At a share price of NOK 260 (before the stock split), we were able to raise 1.04 billion NOK in a matter of three and a half hours! This type of response clearly shows the degree of faith investors have in TOMRA and our ability to translate a successful business

concept into extraordinary value for our shareholders.

TOMRA's shareholders have indeed much to be happy about given the appreciation in value of our company during the past year. Much of this growth has been fueled by the proposed deposit on non-refillable containers in Germany scheduled to be introduced in 2001. This will certainly open up great possibilities for TOMRA in Germany, and to help put these developments in perspective, this issue's Market Spotlight section focuses on the German market.

Yes, this has indeed been an exciting year. So exciting in fact that it is hard to believe that the New Year is already upon us. And with the initiatives TOMRA has in store for next year, 2001 promises to be just as exciting. I would like to wish all of our employees, customers, and shareholders a wonderful Christmas holiday and all the very best for the New Year. Like me, I hope that you are looking forward to the world of opportunities that lie ahead in the year to come!

*Erik Thorsen
President & CEO*

The SmartSort concept has been developed by TOMRA to solve what in many markets has become an increasing problem: costly and inefficient resorting and redistribution of containers that have been inaccurately sorted at their initial point of collection. SmartSort can eliminate this problem by being able to correctly identify all containers on the market and sort them according to any number of pre-defined parameters, such as, for example, by brewery, material type, or color. Further, by utilizing a system of collection bins in conjunction with the traditional collection table, SmartSort offers storeowners the opportunity to significantly increase container collection capacity without taking up additional floor space!



This smart solution was launched in August and has been enthusiastically received in several markets in Europe, including Finland, Denmark and Switzerland. According to SmartSort product manager Torgeir Nilsen, “the great thing about SmartSort is that it is so flexible. It perfectly responds to what the market needs – a cost-effective modular system that can significantly improve sorting capacity and efficiency without completely doing away with existing equipment or having to rebuild the backroom collection area. And, by reducing handling costs for the retailer, it’s a system that pays for itself.”

In an independent review of a SmartSort test installation in Espoo, Finland, by EP-Logistics Oy, SmartSort showed that it can reduce the amount of time spent handling containers by at least 20 percent. This translates into significant cost savings for retailers.

SmartSort features the introduction of three new main elements. The first represents the backbone of the system, the Horizontal Sorting Gate (HSG). The HSG is linked to the RVM’s container recognition software, so that when a container has passed through the RVM and goes out into the HSG, the gate immediately knows where the container should be sorted. The

second element is a system of collection bins to collect the containers that are sorted by the HSGs. The bins can increase a store’s collection capacity dramatically, and can either be suspended above a collection table or rest on the floor in front of the collection table. The third element, which is required if one chooses to have SmartSort’s suspended collection bin configuration, is the container lift module. This module transports containers up from the RVM to an elevated conveyor system and ultimately into the suspended collection bins.

The SmartSort concept represents the latest addition to TOMRA’s portfolio of efficient, integrated and highly flexible solutions to support the logistics of the entire container accumulation and handling process. As a means of better reflecting the breadth of this portfolio, TOMRA has given a new name to the product family: Logistima. This new name was also chosen to reflect the close connection Logistima has with TOMRA’s two RVM product families, Minima and Ultima.

For further information about SmartSort or other TOMRA products within the Logistima family of efficient backroom solutions, please contact your local TOMRA sales representative.

Customer relations

- *strategic focus area for TOMRA*

One of TOMRA's important customer relations activities is the yearly Customer Satisfaction Survey, where we ask our customers what they think about our products and services.

The survey has been a yearly happening since 1992, with the exception of 1998 and 1999 during which a new survey tool was invested in to help gather feedback from customers in an even more efficient way. The new survey was launched this summer, using the CONFIRMIT system, one of the world's leading applications for market research. Over 8,500 questionnaires were sent out to customers in Europe, the United States and South America. The final results will be available at the end of the year, once the last remaining replies come in from our customers.

What makes the new survey different from previous years is that the questionnaire has been greatly simplified, to make it

easier for customers to fill out. Although customers receive the paper questionnaire in the post, they have the option to reply via the Internet if they find this more convenient. Having experienced first hand how easy the web questionnaire is to fill out, many customers have requested to receive future questionnaires via e-mail, thereby eliminating the need for paper.

Convenience is an important factor in surveys such as these. It is not always so easy for store managers to find the time to fill in the questionnaire, so the simpler the process is, the more likely they are to find the time to reply. The customer feedback TOMRA receives is crucial in helping to prioritize focus areas in the future. The new reporting tool allows TOMRA to systemize the feedback so that our various departments can work actively on improvement activities based on what our customers actually want.

Filling in the questionnaire takes next to no time, thanks to the functional design of the form.



The web questionnaire is an exact electronic replica of the paper questionnaire, and is viewed by some as being even more convenient to fill in.



Team Innovation

Launches new coupon concept in Sweden



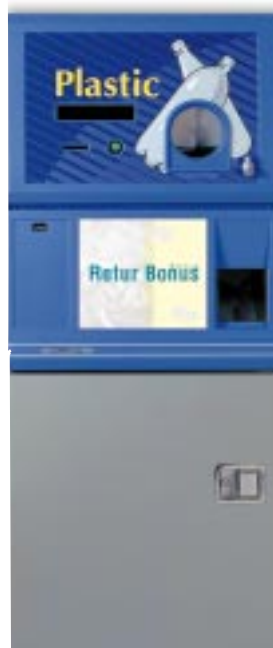
Team Innovation, a partnership between Tomra Europe, Tomra AB, and Swedish grocers Robin Hood and KF (Coop), has created a new coupon program for Sweden – “Tomra Extra Retur Bonus.” The program marks the European launch of the couponing option available in TOMRA’s RVMs.

In Europe, where couponing is not very widespread, a key challenge for TOMRA was to develop a business model that would encourage a long-term commitment from retailers to create a successful new marketing tool. After evaluating a number of markets, it was decided that Sweden would be the ideal market to develop a coupon program due to the characteristics of our RVM installations there and the fact that the use of coupons is already established in this market.

According to Bo Wallström, Marketing Manager at Robin Hood, “we realized the significant value of this concept and that by working as a team we would be in a much better position to fine-tune the product and exceed our customers’ expectations. One of the ideas that came out of this teamwork approach was the development of the Tomra Extra Retur Bonus name. Our joint goal is that consumers will start to recognize the name and immediately associate it with the fact that they receive extra value by returning their containers at that particular store.”

Sweden’s largest brewer, Pripps, participated in the program’s first full-scale coupon cycle which was recently concluded. Says Rolf Lindgren, sales manager at Tomra AB, “initial reactions after the first cycle have been very favorable, but we are eagerly awaiting detailed information pertaining to the redemption and sales numbers. Then we can truly evaluate the concept to see how effective a marketing tool it really is.”

The second cycle is currently underway, this time also with Pripps, and preparations are being made for the next cycle as well. RETURN will keep you updated as the program progresses – stay tuned!



For more information about couponing through TOMRA RVMs, contact Lasse Nagell, Product Group Manager, Promotions, Tomra Europe AS, tel.: +47 66 79 92 02, e-mail: lasse.nagell@tomra.no.



Get alarmed!



According to Ari Matikainen, Managing Director of Oy Tomra Ab, "one of the challenges that shopkeepers face in the course of a busy day is making sure that the RVMs installed in their store are at all times ready to accept their customers' bottle and can returns. In response to this challenge, we have introduced an expanded array of alarm systems to effectively warn store personnel when their TOMRA machines need to be attended to."

The simplest of the new alarm solutions is the use of a bright light combined with a sound alarm installed on top of the RVM in the backroom (see photo). The use of light and sound together make sure that the alarm is detected by the store personnel even in noisy environments. Further, in a typical situation where several machines are installed side by side, the alarm flashlight allows store personnel to see immediately which of the machines is sending the alarm. This system can also be connected to the sensors that detect when the bins used to collect non-refillable containers are full.

A more advanced solution is provided by a paging system that consists of a portable pager and a transmitter which is connected to the RVMs. Whenever any of the machines gives an alarm, the person carrying the pager is immediately notified. The effective range of the pager depends on the specific surroundings, but the typical range is approximately 300 meters.

Another solution provided by Tomra Finland takes the paging concept one-step further. This system involves the use of an automated telephone which is connected to the RVM alarm outputs. When an alarm goes off, the telephone automatically calls up a pre-programmed number, and when the number is answered, a pre-recorded voice message is played. An advantage of this system is that any normal cellular phone can be used as a receiver. It is also possible to program more than one phone number in the telephone's computer – if the first number called is not answered, the computer will call the additional programmed numbers until the call is answered. One also has the option of

programming different voice messages that can be selectively activated according to alarms from different equipment, such as, for example, an RVM and an accumulation table in the backroom.

Rounding off Tomra Finland's portfolio of RVM alarm systems is a sophisticated solution called the TomControl alarm system. In this solution, the existing PA system of a store is utilized. In the event of an alarm, a pre-recorded voice message is played through the PA system telling the customer that the store personnel are aware of the situation and are on their way to help. The great advantage here is that a store can make their customers feel more comfortable by knowing that someone is coming to assist them. Further, since the existing in-store PA system is used, a store does not need to invest in any additional receiving equipment.

The TomControl system is controlled by software installed on an ordinary PC (with a soundboard), and an alarm connection module which is hooked up to the serial port of the PC. The system currently allows up to 12 alarm inputs.

Oy Tomra AB now offers shopkeepers a number of innovative new approaches to help monitor the operating status of their TOMRA RVMs.

*For further information about the alarm systems provided by Tomra Finland, contact:
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First unmanned Recycling center



HISTORY-MAKING FIRSTS:

- First completely unmanned recycling convenience center
- First e-mail from an outdoor RVM
- First touch-screen on a RVM
- First installation using a bin-hoist system

On Monday, the 23rd of October 2000, an exciting new development took place in a parking lot in downtown Asker, Norway, not far from the international headquarters of the Tomra Group. As motorists parked their cars nearby, little did they know that they were in the presence of history in the making: the TOMRA RVM located at the unmanned outdoor convenience center there was in the process of sending the very first e-mail report from an outdoor RVM to TOMRA headquarters!

The convenience center represents the first installation of a new concept being tested out by TOMRA in collaboration with the local municipal authorities in Asker. The convenience center is completely unmanned, and is open 24 hours a day

for people to return certain types of non-deposit recyclable packaging containers.

The center is equipped with a TOMRA CCA-2 reverse vending machine and an internal hoist system which lifts returned items into bins that can hold up to 500 kg of waste packaging material. The RVM also has a user-friendly, interactive 12-inch touch-screen that displays a number of interesting communication features designed to add incentive for consumers to recycle non-deposit containers.

The project is still in the testing phase, and the experience gained will be an important step toward better understanding consumer recycling behavior. Further developments will be reported here in future issues of RETURN.



The “new” Duo

TOMRA recently launched a totally new version of the reverse vending machine called Duo. This new machine, developed by Tomra Systems OY in Finland, targets small to medium sized grocery stores, convenience stores, drug stores and other small retail outlets.

Accepting cans, glass and PET bottles at the rate of one every three seconds, the Duo's speed performance lets customers spend less time on recycling and more time on doing their shopping—adding convenience and the potential for increased revenues for storeowners. Customers are given a deposit receipt by the machine after it has accepted a customer's returned containers, which he or she can then redeem at the checkout when making their store purchases.

Although small in size, the new Duo is designed to handle larger volumes than its predecessor—storing up to 830 empty containers at a time. Another major selling point is that no electrical upgrades are required for a store to operate the machine. The Duo is available with either a 120-volt or 230-volt electrical system depending on the market, allowing it to be plugged into any standard electrical outlet.



Meet Anne Marie Chronas

president of Camco Recycling Inc.

Camco Recycling Inc., TOMRA's newest North American subsidiary and its largest operation in Canada, is a materials processing company located in the province of Quebec. RETURN recently caught up with the president of Camco, Anne Marie Chronas, to discuss her outlook on the Canadian market and the potential opportunities there for TOMRA.



RETURN: Anne Marie, can you explain a little about how the container collection system works in Canada?

AMC: As in the United States, the collection systems in Canada vary. They mainly consist of deposit systems in which containers are returned to retail stores or alternatively, depot centers. These depot centers do not sell any goods, they only collect empty containers. The only province not having a deposit on all beverage containers is Ontario, and here a dual system is in place: curbside for soft drink containers and deposit return for beer containers.

RETURN: What kind of container volumes

are being recycled in Canada at the moment?

AMC: Canada, which has a population of about 30 million people in its 10 provinces, currently recycles approximately 3.5 billion containers a year. The provinces with the greatest volumes from east to west are New Brunswick, Quebec, Ontario, Alberta and British Columbia, with the average return rate in deposit areas being around 70 to 80 percent.

RETURN: What are your thoughts on the opportunities for TOMRA in Canada?

AMC: There are a whole host of opportunities for TOMRA and Camco to expand in

Canada, including reverse vending machine placements, collection activities and developing new processing technologies. Within Ontario, and particularly its biggest city Toronto, I feel the rePLANET concept has great potential for development, as do TOMRA RVMs in the major supermarket chains. RVMs could also be placed in beer stores which would reduce handling and collection costs to brewers. I also think that the newly released TOMRA RVM Duo will be highly sought after by small retail stores, a market that has up until now been difficult to penetrate.

TOMRA's newest solutions

presented at European trade exhibitions

It has been an active autumn for trade exhibitions in Europe, with TOMRA participating at exhibitions in Finland, Denmark and Germany.



Tomra Finland representatives discuss TOMRA's latest recycling solutions.



One of many possible SmartSort configurations.



Tomra Denmark's Interfair 2000 team.

Retail 2000, Helsinki, Finland

Retail 2000, which was held 12–13 September, attracted some 4,200 visitors interested in viewing the latest that the shop equipment industry had to offer. TOMRA's reputation for innovation did not disappoint visitors as Tomra Finland displayed a full working model of our latest concept for handling containers in the collection area behind the RVM—SmartSort (see separate SmartSort article earlier in this issue). This new concept attracted a great deal of interest as it offers a solution to the difficulties being experienced in many markets due to the increased use of non-refillable PET bottles.

In addition, Tomra Finland gave exhibition attendees a sneak preview of a new compact RVM that TOMRA will launch in selected markets next spring. This machine, based on the Tomra Trio concept, is designed to fit the needs of small convenience stores and gas stations particularly in the Nordic region. According to attendee feedback, this solution will be well-received in Finland.

Interfair 2000, Herning, Denmark

Over 16,000 retail professionals visited Interfair 2000, the eighth annual Nordic trade fair for the wholesale and retail grocery trade staged in Herning from 7-10 October. The 80 square meter TOMRA stand at Interfair, which was named best of the exhibition, featured SmartSort, Tomra Trio, and TOMRA's innovative in-store promotion concepts.

Those visiting the TOMRA stand were able to see how Tomra Denmark can provide

efficient, cost-effective solutions to help the Danish retail industry meet the requirements of the new container collection system being introduced in Denmark. The elements of this new system, Dansk Retursystem (DRS), are presented in more detail in a separate article in this issue of RETURN.

Retail Technology 2000, Düsseldorf, Germany

The second annual Retail Technology exhibition took place in Düsseldorf 7-9 November.

TOMRA's 64 square meter stand highlighted a number of TOMRA products, including a T-600 RVM with TOMRA's new Bottle Material Sensor (BMS), as well as a complete installation of another recent TOMRA innovation, SmartSort.

In addition to its exhibition stand, TOMRA presented its own Returnable Empties Management Conference which



A compacted RVM generated a lot of curiosity at Interfair 2000. The caption in Danish reads "Thank you for 28 years of service".

ran parallel to the exhibition and was free of charge to all participants. This six-hour conference focused on two issues: 1) the logistics involved in returning used beverage containers via food retailers, and 2) the political debate in Germany surrounding the potential deposit on non-refillable containers. Tomra Germany would like to thank everyone involved for all the extra efforts in helping to make this such a success. In particular special thanks go to Jos De Vries (The Retail Company), Guenter Birnbaum (GfK Nürnberg), and Ton Klumper (Tomra Netherlands) for their participation.



TOMRA's stand at Retail Technology 2000

Corporate Social Responsibility

As part of TOMRA's ongoing commitment to environmental performance, the company is preparing a Corporate Social Responsibility Report for 2000 to be published in the spring of next year.

Corporate Social Responsibility (CSR), a business philosophy which is rapidly gaining momentum internationally, embraces a wide range of issues including environmental impact, societal engagement and quality of life. While the development of CSR as a field of study is relatively new, the underlying elements of the concept have been a part of TOMRA since its beginning. Nevertheless, as TOMRA continues its development into a multinational corporation with operations throughout the entire world, it is becoming even more important that the organization be aware of its actual and potential impact on society and the physical environment in which it operates.

Through the CSR reporting program, TOMRA will gain important knowledge about our operations which will be used not

only for the purposes of public reporting, but also for optimization and improvement of the company's "triple-bottom line" – financial, social and environmental performance.

Most TOMRA companies have received the CSR reporting package for 2000 and are being asked to participate. The public report will be published in the spring of 2001, and at the same time an official CSR policy for the Tomra Group will be launched to clarify TOMRA's position on environmental and social performance. Look for an update on this important topic in RETURN next year.

If you are interested in finding out more about the topic of CSR, a wide range of resources are

available on the Internet. A good place to start is the website of the World Business Council for Sustainable Development at <http://www.wbcsd.ch/corp1.htm>. Interested in investment opportunities within the area of sustainable development? Try <http://www.sbi-e.com>.



The Summer Road Show

This summer ushered in an exciting new career opportunity for TOMRA's reverse vending machines – their work in retail outlets around the world – TOMRA RVMs have hit the big time, after

Norway Cup Soccer Tournament, Oslo; 30 July – 4 August

TOMRA RVMs made their special event debut this summer in front of the very enthusiastic crowd assembled for the six-day Norway Cup tournament in Oslo. The Norway Cup is the largest annual international youth soccer tournament in the world, drawing 1000 teams of boys and girls between the ages of 10 and 19 years old from all around the globe.

With tens of thousands of people in one area over a six-day period, the event has struggled in the past to keep the area litter-free. And with all the thirsty youngsters on hand, used soft drink containers represented the lion's share of the litter. This year however, one of the main sponsors of the event, Telenor, saw an opportunity to do something about this problem.

Telenor, the largest telecom operator in Norway, had just launched a media campaign a few months prior to this event which focused on the fact that one could make an international call with Telenor for the same price as the deposit refund on a bottle or can in Norway. Telenor saw the opportunity to extend this theme to the soccer tournament, deciding to give each

consumer who returned eight bottles/cans a prepaid calling card worth NOK 15 (almost twice the refund you would normally get for 8 bottles/cans).

In order to help them with this challenge, Tomra Norway (TBS) offered to lend them a T-600 RVM. In return Telenor offered TOMRA significant marketing exposure by displaying the TOMRA logo on 400 marketing boards around the playing area. "I did not see one single bottle on the 35-field area while I was there," said Dag Benterud, Tomra European Services, who was in charge of the daily maintenance on the machine. During the course of the preliminary 6-day tournament, a total of 15,932 half-liter bottles were returned!

Pepsi Island Festival, Budapest; 2-10 August

The next stop on the summer 2000 TOMRA road show was at the Pepsi Island Festival in Budapest. This was a joint project between Pepsi and Tomra Austria, featuring an outstanding performance by a quartet of T-22 RVMs for non-refillable PET containers. This RVM ensemble played their hearts out for the appreciative crowd, who in many instances had to wait in line a long time before having the opportunity to come face-to-face with the T-22s. By the end of the seven-day festival, TOMRA's RVMs had pulled in over 79,000 bottles! Perhaps what kept the crowd enthralled was the chance of winning various Pepsi giveaways in exchange for returned containers – including a shot at a mobile telephone, but we prefer to believe that it was the harmonious performance by the T-22s that kept the crowds coming.

According to "roadies" Ole Martin Løstegård and Knut Hagen from the Tomra European Service support team, "we expected this significant return volume and wanted to send twice as many machines. However, the timing of the project did not



By the end of the seven-day festival, TOMRA's RVMs had pulled in over 79,000 bottles!

ng machines. Gone are the days when they could just sit quietly doing
r performing at several major outdoor events this summer.

give us enough lead-time to provide new machines, so we located as many machines as possible that could be borrowed from existing environments. This was not exactly an easy task, and presented a real challenge for us to make them festival-ready – not to mention the fact that when rock bands began playing on the main stage, the voltage to the machines dropped so low that it was difficult for the machines' compacting and shredding elements to function properly."

In addition to keeping the festival site free of empty bottles and providing Pepsi with a valuable promotional tool, the event gave TOMRA RVMs the chance to showcase their talents on Hungarian television. "This was an excellent opportunity for us to gain publicity in the Hungarian market and show local authorities the advantages of the TOMRA concept. I am certain that the contacts we have made through this initiative will be critical to TOMRA's future success in Hungary," says Guenther Hirscher, Managing Director of Tomra Austria and TOMRA's representative for the Hungarian market.

Norwegian National Tennis Championship, Oslo; 10-20 August

The last special event on the summer tour took place in Oslo at the Norwegian National Tennis Championship, featuring a solo performance by a T-14 RVM for cans. The request for TOMRA's participation at this event came as a result of the impressive showing by TOMRA RVMs at the Norway Cup tournament.

"For this event we did not expect the same type of return volumes experienced at the two earlier events, so we decided to send a T-14 machine to handle the workload. Once again our machine kept working the entire time and proved to be effective in keeping the area clean from used beverage containers," said Lasse Nagell, Product Group Manager, Promotions.

By all accounts, the summer 2000 TOMRA road show was a huge success, and a fine demonstration of TOMRA fighting spirit in overcoming the challenges involved in such a unique project. Various ideas are being considered for continuing this initiative next year, so do not be surprised if you see TOMRA RVMs hitting the road again next summer!



Imre Gulyás (right), MD of Wanzl Hungary Kft, our distribution partner in Hungary together with Günter Hirscher of Tomra Leergutsysteme GmbH.



The Telenor tent encouraged people to return their empties by offering attractive incentives.



The Telenor campaign "Why throw it away... when you can hand it back at the Telenor tent and get a phone card in return".



TOMRA Global Business Development:

Business development team expands its ranks

TOMRA's newest organizational unit, Global Business Development (GBD), has added several new members to its ranks during recent months. A good opportunity for RETURN to highlight the work of GBD and introduce its newest team members.

Under the leadership of Greg Garvey, the GBD group was established during the third quarter 1999 as a more concentrated approach to conceiving and developing strategic business opportunities for the Tomra Group. GBD's perspective is long-term in nature, focusing on building industry relationships and identifying strategic investment opportunities worldwide. This work is segmented into four regional areas: Asia, Europe, North America and South America. To strengthen GBD's leadership within these areas, TOMRA has carried out a recruitment process during the past year that has resulted in the appointment of new senior GBD executives.

Yasuro "Jimmy" Taniyama, Vice President GBD, Asia Pacific Region

Jimmy Taniyama (53) holds a BA degree from Osaka University of Foreign Studies and specialization studies from the Wharton School of the University of Pennsylvania. His professional career spans some thirty years of international experience in Japan, Singapore, China, Brazil, and the United States. He has held a number of senior management positions within the Suntory Group, Japan's leading beverage producer and a major international player within the food and beverage industry. Jimmy joins TOMRA after serving as president of Suntory's extensive US operations, including an \$840 mil-



lion water bottling business, a Pepsi-Cola bottling plant, and distilling activities.

Jimmy, who will be based in Japan, will be responsible for leading TOMRA's development initiatives in Japan and the rest of Asia, as well as contributing to GBD's activities in other parts of the world as required.

Wolfgang Ringel, Director, GBD

Wolfgang Ringel (36) joins TOMRA from the organization charged with administering Germany's national collection system for packaging waste, Duales System Deutschland (DSD). As legal advisor for DSD, Wolfgang has been intimately involved in issues dealing with packaging waste legislation in Germany and instrumental in developing the DSD "Green Dot" licensing program throughout Europe.

Wolfgang will be based at the offices of TOMRA's German subsidiary in Hilden, Germany, and will focus on monitoring recycling legislation in Germany and the EU. Additionally, Wolfgang will work extensively on developing industry and government relationships in Europe, particularly in Germany, France, Italy, and Spain.

Other members of the GBD group include:

Cees Petersen, Vice President GBD. Cees, who was profiled in the previous issue of RETURN, has been with TOMRA since June of this year and is based at TOMRA's subsidiary in Apeldoorn, Holland. His primary focus area at present is to help develop TOMRA's role in the German market in



response to the proposed introduction of new container deposit legislation in this country. Additionally, Cees works with assessing value chain optimization and packaging recovery alternatives.

Michael Löwe, Project Manager. Michael, who has held several positions within Tomra Germany during the past six years, was promoted to GBD in August of this year. Michael's primary area of responsibility will be to provide project capacity to our key German development projects and strengthen GBD's central European team out of his base at Tomra GmbH in Hilden, Germany.

Christian Aasen, Project Manager. Christian joins GBD after having served as Area Manager with Tomra Europe since

1998 where he was responsible for managing TOMRA's activities in Portugal and South America. Christian's experience in South America will help GBD expand TOMRA's developmental projects in this region. He will be based in Brazil.

Greg Garvey, GBD Executive in Charge. Based out of TOMRA's headquarters in the United States, Greg's primary areas of

responsibility are, in addition to leading the unit, TOMRA's development projects in Brazil, California and US non-deposit markets.

Pål Bråthen, Senior Vice President, GBD. Pål's areas of responsibility include monitoring EU recycling legislation and TOMRA's development projects in Japan/Asia, UK, France, Italy, and Spain.

Additionally, Pål acts as GBD's chief administrative officer out of TOMRA's headquarters in Asker, Norway.

Klaus Røiri, Manager, GBD. Klaus provides support to Tomra Europe relative to TOMRA's initiatives in Israel and Poland, and assists on other European GBD projects. Klaus is based at the TOMRA headquarters in Norway.

Israel preparing for **Implementation of deposit system**

After enacting a mandatory container deposit law in April 1999, Israel's national legislature voted in August 2000 on amendments to this law in order to bring it closer to the Nordic deposit model.

The purpose of this law is to encourage better environmental responsibility and to reduce the amount of waste that is being landfilled. The Israeli market is almost entirely based on non-refillable containers, and the new legislation represents the first national initiative to divert these beverage containers from landfills so that they can be recycled. Under the law, all non-refillable containers made of glass, metal and plastic (with the exception of 1.5 liter and above) will have a deposit of NIS 0.25 (about \$0.05). The deposit is refunded to the consumer when the container is returned to a retail outlet.

The Manufacturers Association of Israel and the Federation of Chambers of Commerce, representing Israeli manufacturers, retailers and importers, are now in

the process of setting up a central organization to administer the deposit system similar to such organizations operating in Scandinavia (Returpack in Sweden, Palpa in Finland and Resirk in Norway).

They have also issued a comprehensive "Request for Information (RFI)" to all potential suppliers of systems for the collection and recycling of used beverage containers. Their approach emphasizes the importance of basing the Israeli system on proven technologies and solutions already in use in current non-refillable deposit markets.

With some 500 to 800 supermarkets and

more than a billion beverage containers affected by the legislation, Israel represents a major new market opportunity for TOMRA's automated solutions and systems.

In response to this opportunity, TOMRA has solidified its long-standing relationship with Mr. Yair Inov, Managing Director of ADAD Collection & Recycling Systems Ltd., by making Mr. Inov's newly established company the exclusive TOMRA distributor in Israel.

TOMRA's official response to the Israeli Request for Information is ready to be signed by TOMRA CEO, Erik Thorsen, and Yair Inov, Managing Director of TOMRA's distributor in Israel, ADAD Collection & Recycling Systems Ltd. André P. Lovestam, SVP Operations in Tomra Europe, overlooks the signing.



TOMRA Market Spotlight:

GERMANY



Population (1999)
82 million

Language
German

Religions
Protestant 38%
Catholic 34%
other 28%

Area
349,520 sq. km.
(135,000 sq. miles)

Capital
Berlin

Largest cities
Berlin (3,425,759)
Hamburg (1,704,731)
Munich (1,205,923)
Cologne (964,311)
Frankfurt (643,469)

During the past year, extensive discussions have been taking place in Germany to determine what measures should be taken to address the impact of the increasing use of non-refillable beverage containers in the country. This has resulted in a proposal by the German Ministry of Environment to enact new legislation which would place a deposit on non-refillable containers. To help put these developments in perspective, this issue's TOMRA Market Spotlight section has been expanded to allow an in-depth look at how used beverage containers are recycled in Germany, the role TOMRA plays in this process, and what impact a deposit on non-refillable containers may have.

The German market-an overview

With its 82 million inhabitants, Germany is the most populous country in the European Union and the 12th largest in the world. Its robust economy is the third largest in the world, preceded only by the US and Japan. And with a per capita income of over 61,000 DM (31,390 euro), German consumers have one of the highest levels of disposable income in the world and spend approximately 14 percent of their total expenditure on food, beverages and tobacco. About two-thirds of this expenditure is made through supermarkets and other retail outlets, the rest through local outdoor markets, restaurants and other establishments where food and beverages are consumed on-premise.

There are some 77,000 retail food outlets in Germany (excluding convenience stores), most of which are small local shops and neighborhood supermarkets. This market is becoming increasingly dominated by a small number of large German retailers, with ten chains now accounting for 83 percent of total retail sales of food and beverages (up from about 56 percent in 1990).

Large hypermarkets and discount stores have gained significant market share in recent years, taking in 70 percent of the retail food and beverage turnover in Germany while numbering less than 25 percent of the total number of retail outlets.

The German beverage industry

The beverage industry in Germany has been shaped to a large degree by the large number of small, independent breweries (approx. 1,277) throughout the country. With a brewing tradition dating back hundreds of years, the world-renowned beers produced by German breweries account for over 10 percent of worldwide beer sales, second only to the United States (whose major breweries by the way were founded by German immigrants). This long tradition contributes to Germany having the second largest per capita beer consumption rate in the world, even though this rate has dropped by about 15 percent during the past twenty years.

Domestically produced beers account for about 97 percent of the beer sold in Germany. Beer sales in general make up

over 60 percent of the alcoholic drinks market in Germany, with the remaining 40 percent equally split between wine and spirits. As elsewhere in the West, wine consumption is on the rise, and Germany is currently the world's largest importer of wine.

While beer consumption has been steadily decreasing, the demand for bottled water, juices and soft drinks has been on the rise. Bottled water in particular has become a big seller, with per capita consumption reaching about 100 liters in 1999. There are now some 238 mineral water producers, 226 soft drink bottlers, and 450 fruit juice producers operating in Germany to meet the increasing demand for these beverages.

Beverage container mix

The type of container material found most frequently in Germany is the glass bottle, followed by steel cans, Tetra Paks, PET bottles and aluminum cans. The majority of Germany's beverage containers are refillable glass and plastic bottles used for beer, soft drinks, water, and wine. Refillable containers each carry a deposit value that varies according to type and whether they are returned individually or in crates (see table). To a large degree, the collection of these refillable containers is still handled manually, however the use of automated reverse vending systems in the country is growing rapidly. TOMRA currently maintains about 6,000 reverse vending installations in retail food outlets in Germany, which represents a market share of about 85 percent.

Deposit values for refillable containers

Glass

Beer bottle: 15 pfennige

Beer bottle with ceramic cap: 30 pfennige

Water bottle: 30 pfennige

Wine bottle: 5-10 pfennige

Plastic

PET bottle: 30, 50 or 70 pfennige

Crates

Split crates: 1.50 DM

Beer crates: 3 DM

Water bottle crates: 3 DM

PET crates: 3-5 DM



The deposit system for handling refillable beverage containers in Germany, which has been around since the late 1800's, maintains an impressive return rate of 98 percent. Although a packaging ordinance sets the industry quotas for refillable containers, there is no government legislation regulating the deposit system, it is entirely self-regulated by industry and the retail trade. One of the unique aspects of Germany's refillable system is that it is highly localized, i.e. the high number of area-specific refillables requires that consumers in most cases have to return the containers to the supermarket or drink store where they purchased them, or at least to a store that carries the product.

The use of non-refillable containers in the German market however, as elsewhere in the world, is on the rise. This can be attributed to a number of factors, including changing lifestyles and consumption patterns, expanded product distribution nationally and internationally, and convenience for consumers. Over recent years non-refillable beverage containers have gained considerable market share in Germany despite the country having extensive legislation intended to encourage the use of refillable containers.

In an attempt to maintain the position of refillable containers and reduce the amount of packaging material entering the country's public waste management system, German lawmakers began formulating in the late 1980's a new legislative mandate to govern the use of packaging materials. This process led to Germany in 1991 passing the world's first legislation to consider packaging waste as part of a product's life cycle and that the responsibility for its disposal should be shouldered by the manufacturer

(an idea now known as Extended Producer Responsibility, or EPR). This concept was codified into legislation when the German government enacted the Packaging Ordinance, which first took effect June 12, 1991. This legislation also inspired the European Union's Directive on Packaging & Packaging Waste passed in 1994 and recycling initiatives in many other countries.

Packaging Ordinance of 1991

The Packaging Ordinance mandated that refillable containers must constitute at least 72 percent of the beverage containers used in the country annually, which was the market share that refillable containers held in Germany at the time the law was enacted in 1991. The German Ministry of

Germany's Packaging Ordinance of 1991

There are three categories of packaging subject to the terms of the Ordinance:

- 1. Primary--the basic package that contains the product (e.g., soup can, jam jar, soap-powder box, beverage containers).*
- 2. Secondary--additional packaging designed to facilitate self-service sales, to prevent theft, or to advertise and market the product (e.g., outer boxes, foils, blister packs).*
- 3. Transport--packaging used to ship goods to retailers (e.g., crates, pallets, corrugated containers).*

Primary packaging accounts for about two-thirds of Germany's packaging waste stream, transport packaging accounts for about one-third and secondary packaging for less than one percent.

Environment was charged with monitoring the compliance of this quota, and was empowered to introduce a mandatory deposit on those beverage products which were not able to attain their specific recycling quotas in two successive years. The Ordinance called for the Government to enact the mandatory deposit within a maximum of six months after a negative result was confirmed and officially announced for the second consecutive year period.

The Ordinance also allowed German industry to set up a privately financed organization which would be responsible for meeting the goals specified in the legislation, a plan which came to be known as the "Dual System," run by the private company *Duales System Deutschland GmbH (DSD)*.

The Dual System operates in conjunction with the existing municipal solid waste management structure in Germany. DSD is a private, non-profit company responsible for organizing the collection, sorting and in certain instances the recycling of packaging waste. The organization was established to ensure that the quotas set by the Packaging Ordinance for recycling glass, tinplate, steel, aluminum, paper/paperboard, plastics, and composites are met on behalf of German industry.



DSD, whose shareholders consist of companies within the food and retail industries, finances its activities through charging for trademark licensing ("Der Grüne Punkt"—the Green Dot) to fillers, packers and importers of packages. The Green Dot license fee varies according to the type of product packaging and is used on a wide range consumer goods. DSD currently brings in about four billion German marks in license fees, of which about DM 800 million come from beverage producers.

The collection of containers and other packaging material with the Green Dot mark is achieved through a voluntary system whereby the German public sorts the waste material correctly into either curbside bins (plastic materials), igloos (glass), or in areas where these are not available, centrally located drop-off centers. While this system has been successful in collecting and diverting a large amount of packaging material from the public waste stream, it has not stimulated industry into maintaining the quota requirements for refillables as established by the Packaging Ordinance. Furthermore, the quality of the returned waste material is prone to contamination, which reduces the value of the raw material.

In its official announcement for the year 1997, the German Ministry of Environment declared that the use of refillable containers had dropped below the 72 percent quota for the first time (71.35 %). In 1998 the figure fell further to 70.13%, below the quota for the second consecutive year. A recent press release by the German Wholesalers Association "Deutsche Umwelthilfe," indicates that the figure for 1999 may even be as low as 66 percent. The expectation that the 72 percent quota will

again not be reached has led to discussions between the Government and concerned parties about how an eventual introduction of a mandatory deposit on cans and non-refillable glass and plastic bottles could be carried out.

Potential impact of proposed new legislation

On October 25, 2000, 15 out of the 16 state environmental ministers informed that they would support the German Minister of Environment, Jürgen Trittin, in his call for a mandatory deposit on all non-refillable containers (with the exception of Tetra Paks, a container type which life cycle analyses indicate has a relatively low negative environmental impact under the current system), to be introduced in Germany in 2001. This proposal is also supported by environmental organizations, the wholesale industry, the majority of local breweries in Germany, and over 80 percent of the German population. It is also seen as a measure which will strengthen the market for refillables.

With the amount of non-refillable containers currently being used in Germany at about 15.4 billion units per year, the introduction of deposit on these containers would require significant changes to the collection infrastructure now in place throughout the country. It is estimated that this proposal would require an additional 30-35,000 new RVMs to be installed in the country over the first three years to handle non-refillable containers. In recognition of the potential impact this proposal could have on its activities, TOMRA has been actively engaged in the process and has taken steps to ensure that the demand for our solutions can be met should the proposal go forward next year. TOMRA has focused its efforts on three areas:

- 1) *Providing information to decision-makers about container handling alternatives and the support, solutions, and services TOMRA can offer.*
- 2) *Working with industry partners to develop a container deposit model that would address the unique concerns of the German*



market with support from existing deposit administration organizations in other countries. Tomra Systems GmbH and TRINKS GmbH have recently initiated a deposit administration organization, *Retourpack Deutschland*, along the same lines as the Scandinavian deposit administrations.

3) *Preparing internally for the potential increase in demand for TOMRA's RVMs. TOMRA already has two production sites, but we are, for example, evaluating certain partnerships with German industry to help expand TOMRA's current production capacity in order to meet the potential increase in demand.*

The Ministry of Environment is expected to communicate the details of the proposed new system by the end of the first quarter 2001. Whatever the final outcome of this process, TOMRA looks forward to providing our experience and know-how to the best advantage of German manufacturers, retailers and consumers.

TOMRA Experience

TOMRA's solutions are the result of over 28 years of experience in diverse markets around the world. When it comes to the introduction of deposit on non-refillable containers, TOMRA has been involved in this process numerous times in many different markets. In Europe, TOMRA played an instrumental part in helping to establish Sweden's deposit administration system (run by AB Svenska Returpack), when in 1984 it was the first European country to introduce a deposit on cans and later in 1994 when it introduced a deposit on non-refillable PET. TOMRA has also played a key role in establishing similar models in Finland (Palpa Ltd.) in 1997, when deposit was introduced on cans, and Norway (Resirk AS) in 1999, when deposit was introduced on cans and non-refillable PET.

In the United States, TOMRA has led the way in creating effective, cost-efficient container recycling models in all ten deposit states. In many of these markets TOMRA owns and operates a highly integrated system which covers the entire recycling

Market Overview

Legal framework

Packaging Ordinance of 1991 (Verpackungsverordnung). Passed June 12, 1991 (amended August 28, 1998). Currently under review.

Defining elements

- Complex beverage container market, with over 600 different refillable bottle types and 1,400 different returnable bottle crates.
- Non-profit organization (DSD) manages the recycling process for one-way packaging on behalf of industry.
- Has the world's most extensive packaging legislation and one of the highest mandated container recycling targets.

Beverage container usage rates

- Refillable: 36.5 billion units per year (22.5 billion liters)
- Non-refillable: 15.4 billion units (8.5 billion liters)

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loop of a container, including the recovery, sorting, distribution and materials processing of used non-refillable containers prior to their re-use.

TOMRA has been present in Germany since 1973 and set up its first subsidiary there in 1985. Tomra Germany, officially known as Tomra Systems GmbH, is TOMRA's largest subsidiary in Europe and the clear market leader in Germany.

Tomra Systems GmbH

A wholly owned subsidiary of TOMRA since 1990, Tomra Systems GmbH has over 80 employees working within the areas of administration, marketing, sales and service. The company's 16 regional service centers, located in each of Germany's 16 states, provide support for the more than 6,000 machine installations across the country. Since 1985, Tomra Germany has doubled the amount of its RVM installations every third year.

The complexity of the German refillable container market, with deposit on over 600 different bottle types and 1,400 different kinds of crates, places special demands on automated collection systems. TOMRA's extensive experience in Germany and elsewhere in the world has helped the company to develop the most advanced bottle and crate recognition technology on the market.

According to Thomas Dory, Managing Director of Tomra Systems GmbH, "the proposed new legislation concerning non-refillable containers will certainly present new challenges for our organization as well as other operators within this industry. Yet we feel that we are uniquely qualified and prepared to offer efficient, cost-effective solutions to meet the demands the new legislation would require. We look forward to working with German industry and other partners in developing a container collection system that is right for Germany and which could also serve as a potential model for other European markets."

Editor's note: in the preparation of this article, we would like to acknowledge the following sources:

- www.statistik-bund.de
- <http://www.corporateinformation.com/desector/Retail.html/>
- <http://www.beverage-world.com/ebwjour4.htm>
- <http://www.gruener-punkt.de/>
- <http://www.mineralwasser.com/>
- <http://www.fruchtsaft.de/index.html>
- <http://www.brauer-bund.de/>
- http://www.deutscheweine.de/home_d1.htm
- <http://www.duh.de/pm0712-d.htm>



Suppliers' Day



Winners of the 2000 Supplier of the Year Award Serimaster (Egil Lindberg), Aratron AS (H.C. Valseth), Kitron Electronics AS (F. Ilebekk), TH Kristiansen AS (J.R. Ulriksen and P.E. Dybdahl)

Every year since 1989, TOMRA in Norway has arranged a special conference for its largest, most important suppliers. The conference this year, which was also attended by employees from TOMRA's purchasing, production and technical environment departments, featured a number of guest speakers from Tomra's senior management, who talked about TOMRA and the challenges facing our logistics organization.

As in previous years, TOMRA handed out its much coveted "Supplier of the Year" award. This award covers four different categories: mechanics, electronics, plastics and distribution. In order to qualify for the prize, a supplier must demonstrate excellence in delivery capability, precision and flexibility, consistently high quality, competitive prices, positive cooperation and a sound environmental policy.

The end of the day's proceedings was rounded off with an informal dinner and social event, to help strengthen the bonds of team-spirit among all the participants.



Update:

TOMRA Technology

The latest technological innovation to be introduced in TOMRA's line of RVMs is a highly cost-effective material recognition system known as the Bottle Material Sensor (patent-pending).

Developed by TOMRA's Research & Development department in collaboration with The Foundation for Scientific and Industrial Research at the Norwegian Institute of Technology (SINTEF), the Bottle Material Sensor (BMS) represents the very latest advance in material recognition technology. This device allows TOMRA RVMs to detect first whether a container coming into the machine is made of glass or plastic, and if plastic, to distinguish whether the plastic material matches one of six acceptable plastic compositions. In addition, as the container's material composition is being analyzed, the BMS also identifies the color of the material. With these capabilities, the BMS allows new automated sorting possibilities for glass and plastic bottles that can represent significant cost savings for both retailers and those responsible for processing these containers.

The BMS system works in the following way. First, a light source (a regular halogen lamp) sends a beam of light through a container as it enters the RVM. After the light beam passes through the bottle it is transmitted through a rotating disk which encases six small samples of different plastic

types. Behind this disk lies a detector which measures the resulting intensity sequence pattern of the infrared light spectrum, the characteristic of which is different according to each material type. This rotating disk also contains three samples of different plastic colors which are used to detect the color of the container.

After a development period of three years, the BMS is now available worldwide for installation in selected models of TOMRA RVMs. And, to fully utilize the advantages offered by the BMS system, TOMRA has also recently launched a new container accumulation system designed to significantly increase sorting and collection capacity behind the RVM. This new automated system, SmartSort, is discussed in more detail earlier in this issue.

Stay tuned for more innovations from TOMRA Technology!

If you would like more information about the Bottle Material Sensor, contact Tom Steidel, Product Group Manager, Tomra Europe, tel.: +47 66 79 92 74; e-mail: toms@tomra.no.



New return system comes to Denmark

A new system for the collection and handling of used beverage containers in Denmark is now being introduced. To administrate this program, a new non-profit company was created on 1 July 2000, Dansk Retursystem A/S (DRS).

DRS's main responsibilities are to introduce and administer the new container handling fee payments, upgrade the existing deposit and collection system for refillable containers, and make preparations for a potential introduction of deposit on non-refillable containers. The organization is governed by representatives from the Danish brewery and food retail industries.

The introduction of handling fees on refillable containers was proposed as a means of offsetting the significant costs involved for retail outlets to sort these containers according to which brewery or bottler they belong to. In recognition of this, under the new system every time a bottled beverage is sold to a retailer, the manufacturer must pay a handling fee to DRS. The handling fees are

assigned according to bottle type, and are as follows: refillable glass – 2.7 øre per bottle; refillable PET (less than one liter) – 5.2 øre per bottle, (over one liter) – 7.3 øre per bottle. The money collected in this system will be used to cover retailers' handling costs as well as the expenses associated with upgrading to more efficient container collection equipment.

Those businesses receiving more than 350,000 containers in return a year are eligible under the DRS program to be compensated for investing in new equipment which would improve the efficiency of their container sorting and handling system. To improve efficiency, the new equipment must include among other capabilities the ability to register and sort a container based on the barcode found on its label. Such a nationwide investment program signals a significant opportunity for TOMRA, and Tomra Denmark stands ready to provide the most versatile and technologically advanced container collection and sorting systems on the market.

If you would more information about the automated container collection and sorting solutions TOMRA can provide in Denmark, please contact Managing Director Henrik Friis of Tomra Systems A/S, telephone: +45 43565051, e-mail: Henrik.Friis@Tomrasystems.dk.



Prepared for growth: Tomra Denmark's new 1250 square meter office building is optimally situated about ten minutes west of Copenhagen International Airport and in close proximity to Denmark's highway system.

rePLANET 2000:

A portrait of TOMRA fighting spirit

The hectic rePLANET rollout schedule in California during the past year has provided plenty of opportunity for the rePLANET team to roll up their sleeves and show the TOMRA fighting spirit. "Make It Happen!" is the TOMRA team's battle cry in California, and through sacrifice, determination and sheer willpower the rePLANET installation schedule is keeping on track.

rePLANET milestones for the year

January

rePLANET featured internationally on the CNN program "Earth Matters."

February

rePLANET rollout begins in full force.

April

RVMs handle 19% of rePLANET container volume.

June

rePLANET featured in CNN program "Business Unusual."

July

rePLANET teams up with CarsDirect.com and Rainforest Café for the "Make Some Tracks" promotion campaign in the Inland Empire area.

August

The percentage of containers being handled by RVMs up to 28%.

September

Over 125 rePLANET locations operational.

October

rePLANET installations begin in San Diego area.

November

Coupon distribution program in partnership with Pepsi begins testing.

The ambitious rePLANET conversion schedule has required an enormous team effort on the part of our TOMRA colleagues in California. Numerous challenges must be overcome before a rePLANET recycling center is up and running, and at the rate of installing four new centers on average a week, one gets an idea of the logistical treadmill which TOMRA's dedicated employees are facing.

Generally the first step is site identification. The placement of a recycling center is crucial to its success – it must be conveniently located within close proximity to grocery outlets, have sufficient vehicle access, and be connectable to all public utilities. Once TOMRA has identified a desired location, the next step involves obtaining all the relevant site surveys, work permits, and approvals from retailers, property owners, building landlords, and municipalities. This is a very laborious process which often presents a number of roadblocks along the way. But in the end, the quality of our rePLANET concept and TOMRA's determined persistence usually saves the day!

The next challenge comes in the form of the actual construction work. Anyone who has attempted to manage a construction project knows the type of effort that is required in this phase, and the TOMRA crew works feats of magic week in and week out to get the job done.



Last but certainly not least, comes the hiring and training of the rePLANET recycling specialists who take care of our rePLANET customers. A tremendous amount of emphasis is placed on providing excellent customer service, and the positive feedback we are getting from the public shows that our training efforts are really paying off!

Finally, holding the whole process together is Tomra Pacific's administrative and management team. The rapid acceptance of rePLANET is in no small way a tribute to TOMRA's innovative marketing efforts and wise management decisions, something which has captured interest internationally through reports on CNN and other networks.

All combined, rePLANET is a picture perfect portrait of TOMRA fighting spirit!

Living our values:



Monica Sandoval-Zazueta,
Executive Assistant,
Tomra Pacific Inc.

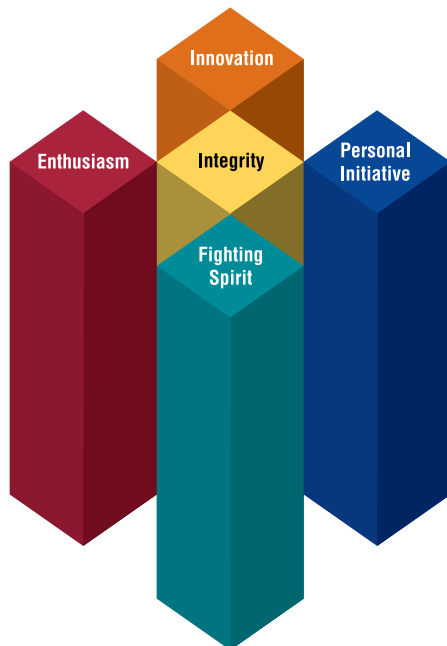
Personal Initiative

Innovation

Enthusiasm

FIGHTING SPIRIT

Integrity



These five concepts stand at the center of TOMRA's value structure, representing what TOMRA refers to as its core values. And since the foundation of TOMRA more than 28 years ago, our business has been built on our employees' commitment to these underlying values as they work to fulfill the goals and strategies of the company.

As a means of recognizing this commitment, RETURN presents the Values In Practice (VIP) Award—an award recognizing TOMRA employees who in an exemplary way demonstrate TOMRA's core values.

The VIP Award is presented twice a year for a different core value each time. The winner is selected by an executive committee that reviews all nominations submitted by TOMRA employees.

This issue's theme, TOMRA fighting spirit, encouraged the nomination of many dedicated employees working throughout the worldwide network of the Tomra Group. The number of excellent nominees made the task of deciding on one winner difficult for the VIP Award jury. The winner of the Autumn 2000 VIP Award for excellence in demonstrating the TOMRA core value of Fighting Spirit is:

Monica Sandoval-Zazueta, Executive Assistant, Tomra Pacific Inc. During the past two and a half years she has been with TOMRA, Monica's positive spirit and personal drive have impressed all who have had the opportunity to work with her. According to Susie Hutcherson, Human Resource Manager at Tomra Pacific Inc. (TPI), "Monica has shown herself to be the ultimate team player. Her spirit really is infectious and helps band the entire office together. Further, Monica can always be counted on to get the job done—whether it's arranging a five-day leadership conference, making a hundred copies at a moment's notice, or going out of her way on her own time to make sure that guests staying with us have everything they need."

Monica's primary area of responsibility is providing support to the president of TPI. Through the difficult rePLANET conversion process that TPI has been coordinating during the past year, Monica has played a key role in keeping the process on track. Her winning attitude is a prime example of TOMRA Fighting Spirit and employees who are Living our Values!

Congratulations Monica!

A number of runners up for the VIP Award deserve honorable mention:

Kirsty Nijhuis, Sales Support Department in Tomra Systems BV (Netherlands):

During periods with shortages of resources, Kirsty has demonstrated a very positive, optimistic and persevering attitude, by taking on additional tasks and workloads and doing it all with a smile.

Svein Volkvord, Customer Support Department in Tomra Butikksystemer (Norway):

During the busiest growth period in the history of this company, Svein has demonstrated an unflinching ability to give his customers the best service at all times, in spite of an extremely grueling schedule. His stamina and team spirit are highly valued by his colleagues.

Manuel Alaniz, Sales Representative in Tomra Pacific Inc. (USA):

Sheer dedication to his business unit is what Manuel has demonstrated this past year, selling 75 percent more volume than in the same period last year. Achieving what many might consider impossible, Manuel has sacrificed much personal time in order to exceed tough goals, cultivating a winning attitude in his team.