President’s word

A new packaging reality to be born in Tanzania

I believe that my time in Dar Es Salaam was well worth the effort. From February 7th to 10th we visited a number of manufacturing converting facilities in both plastic and paper. In every case we were well received and the owners and managing directors thought that the establishing of the Tanzanian Institute of Packaging (TIP) was a good idea.

But like all new projects there is always the fear that people say they will support but then fail to make the effort. The invitations were issued to 30 senior packaging related people to attend a project’s cocktail function; 27 attended.

On the occasion, my presentation covered the benefits of establishing the TIP. I also spoke about Africa and its future potential and packaging’s role, in addition mentioned WPO and IPSA (Institute of Packaging South Africa) and our willingness to support the process.

What was pleasing was the caliber of people who attended the function. For example, the Assistant Director of Multilateral Programs in the Ministry of Industry was there with a colleague, a representative from the Tanzanian Bureau of Standards, owners of companies, managing directors and packaging buyers from large end users.

Prior to the conclusion of the presentation a number of those attending indicated their willingness to get involved in the establishing of TIP. The Government representatives were very supportive and thankful that this initiative was in place.

As part of the visit, we visit Charles Ekelege, General Director of the Tanzanian Bureau of Standards. He showed us the packaging test laboratory that had been set up and equipment supplied by DTI, WPO Danish member, and ITC. Sadly the management is very poor and I recommended they involve the private sector and make the facility a profit centre. The packaging industry is still sending their packages abroad for testing.

When previously visiting Tanzania I had made contact with Sachindra Shetty, Managing Director of a packaging converting company; this time I approached him to lead the way in the establishment of TIP. He agreed and has done a wonderful job in making contacts and arrangements. In 2010 Sachindra was awarded by the Confederation of
Tanzanian Industries as "Manufacturer of the Year". He received the award from the President of Tanzania.

The next few months should see some activity in the putting together the committee and planning for the inauguration of TIP. Another great achievement of WPO in spreading and improving packaging around the world, specially in regions that need it most.

*Keith Pearson is the President of WPO (World Packaging Organisation)*

---

**Inside WPO**

**Board meeting at Interpack**

WPO has just announced the final program to the meetings during Interpack, in Düsseldorf (Germany) that will be co-hosted by EPIC/ NVC. The schedule is:

**May 16th – Monday - Room 110 in Hall 1, CCD South**
- 10:00 to 12:30 Education (Chair: Gordon Stewart)
- 12:30 to 13:30 Lunch
- 13:30 to 17:30 Work Group Meetings: Sustainability (Chair: Tom Schneider), Marketing (Chair: Luciana Pellegrino) and Information / Statistics (Chair: Dogan Erberk)

**May 17th - Tuesday**
- 10:00 to 15:30 Board Meeting, Room 26, CCD South
- 16:00 to 19:30 WorldStar Award Ceremony and Drinks Reception Get-together, Room 2, 1st floor, CCD South

To register to the program contact Rachel Brooks until April 15th by e-mail rachel.brooks@iom3.org or fax +44 (0) 1476 513899

**Recognition of packaging education programmes**

The WPO Education Committee is aware of the lack of availability and recognition of packaging education programs in many parts of the world. As part of its remit to help address this problem, it has developed a procedure for recognizing good quality education and training from its members and others and to place information about these on its web site and to permit organisations with recognised courses and/or qualifications to endorse these as "Recognised by the World Packaging Organisation".

The scheme is open to all types of education and training provision from short courses to those lasting for much longer, including university degrees. However, unfortunately WPO does not have the resources to recognize courses, events or conferences that occur only once. Recognition is free to WPO members but a fee of €500 is payable by other organizations.

For more information contact Gordon Stewart at gordon.stewart@worldpackaging.org.
More WPO activities in China

During his visit to China, for the occasion of WorldStar Student Ceremony, WPO President, Keith Pearson, visited the Blackant Design Studio, owned by Fu Bing. The company employs around 130 employees and is a famous design studio. Pearson also attended China Packaging Federation’s 30th Anniversary Conference held in the San Jay island; where he made the opening speech.

As part of the program in China, WPO President visited the city Erdos, Inner Mongolia. There he was hosted by the local Government that made an official presentation of the details regarding their Manufacturing Zone that was put in place as a partnership between private business and Government. CEPI presented their plans to assist in establishing a local packaging industry that would support the Erdos manufacturing facility. There were also a presentation regarding WPO activities. The tour through the new Manufacturing Zone showed an amazing number of companies from motor car and truck manufacturing to computer and solar energy generating equipment factories. In total there will be around 29 companies established in this new facility.

Official WorldStar Winners’ brochure

As part of the WorldStar Winners presentation to be held at Interpack, in May, WPO contracted Packaging Today, a UK-based packaging magazine, to produce the WorldStar Winners’ Brochure. This is the first time WPO will have such publication and it will bring added benefit both to individual winners and to the WorldStar competition as a whole.

The brochure will contain details of all 2010 WorldStar winners and these, as well as other organizations, can further enhance their profile from paid advertising. It will be distributed at the WorldStar Winners’ Award Ceremony and at Interpack, the world's largest packaging exhibition, in order to guarantee WPO, its members and the winners added exposure.

Support to Japan victims

On behalf of the members of WPO, the President Keith Pearson sent a letter to the Japan Packaging Institute to express the "deep felt support and sorrow for the consequences of the huge disaster that has struck Japan at this time". He truly believe that "the Global family will provide support and assistance to all".

Events

The final run-up for Interpack 2011 has begun

Preparations for Interpack 2011, which is taking place from 12 to 18 May, are now moving into the final busy stages. The prospects for the world’s most important trade fair for the packaging sector and related processing industries are looking very good. About 2,700 exhibitors from roughly 60 countries are expected, who, with a good 174,000 square metres of net space, will again be occupying all 19 halls of the Düsseldorf exhibition centre. Interpack 2011 is presenting packaging and process solutions for companies from the areas of food and beverages, confectionery and bakery products, pharmaceuticals and cosmetics, non-food consumer goods, industrial goods and related services plus packaging materials and their manufacture.

WPO will have an intense activity in the show, with meetings and the WorldStar Award Ceremony. According to Bernd Jablonowsky, Director of the show, “In a globalized packaging world international networking plays a crucial role. This attribute is an impressive feature of the WPO. Therefore we are pleased to provide a suitable platform for their Meetings and the WorldStar Awards ceremonies with Interpack as the world's most important trade fair for the packaging sector and related processing industries.”

Visitors to interpack 2011 can expect not only an internationally unparalleled products and processes from exhibitors, but also innovative special themes. INNOVATIONSPARC PACKAGING 2011 on the theme of "Quality of Life" is presenting an all-embracing concept directed at the individual which correlates directly with consumer behaviour and is
thus highly relevant to the packaging sector, branded goods manufacturers and retailers. Quality of Life finds expression in the five dimensions of Meaning, Health, Identity, Simplicity and Aesthetics. At the special show, these dimensions serve in each case as a shop motto. Together, these shops with a central lecture space make up the oval stand of INNOVATIONSPARC PACKAGING. This special show has been developed in cooperation with our partners the European Retail Institute (EHI), Pan-European Brand Design Association (PDA), the Zukunftsinstitut (institute of the future). One of the hallmarks of INNOVATIONSPARC PACKAGING is that the individual shop designs are the result of cooperation with companies at different stages along the value chain and are directly tied to the shop motto. At the Health shop, for example, a "Dr. Happy-Store" tailored to the LOHAS target group is being created with suitable packaging solutions. And at the Identity shop, the "identify me" concept will be showing solutions, among other things, from the spheres of Augmented Reality, Enhanced Packaging, Performance Packaging and RFID. The other shops are the 24/7 convenience shop (Simplicity), a shop concept under the motto of Green Sense (Meaning) and the design store Birds of Paradise (Aesthetics). A complete list of the total of almost 50 companies and associations involved in INNOVATIONSPARC PACKAGING can be found at www.interpack.com.

The special theme of the Metal Packaging Plaza is being presented with an eye-catching stand design. The new meeting place for the international metal packaging sector and its supplier industries is also visually dominated by metal. A metal sculpture suspended from the ceiling illustrates the stand motto of "infinity". The core subjects of this special theme are sustainability, safety/security and convenience as well as innovations in the field of metal packages. Some 40 companies are taking part. At the heart of the Metal Packaging Plaza is an information platform with a forum, bar lounge and meeting point. This special show of Messe Düsseldorf is supported by German Metal Packaging Association (VMV) and Empac, the European body representing the interests of metal package manufacturers.

Visitors to interpack 2011 can also look forward to the exhibition on the subject of SAVE FOOD in the pavilion between Halls 10 and 16. It is presenting the results of studies conducted in advance of the fair by the Food and Agriculture Organisation (FAO) of the United Nations on the subject of global food loss, as well as examples of best practices in the pavilion’s central area. This area is flanked by the contributions of companies and associations, including Bosch Packaging Technology, Multivac, Metro Cash & Carry, the German Engineering Federation (VDMA) and the European Federation of Corrugated Board Manufacturers (FEFCO). Trade fair visitors can also take advantage of a sustainable catering strategy with a 150 metre long table under a tent construction. This directly adjoins the SAVE FOOD pavilion.

**Around the world**

**Honorary Award in Hungary**

With the purpose of expressing its honour to colleagues who prominently represent the profession of packaging for a long time, the Hungarian Association of Packaging and Materials Handling, a WPO member, created a Honorary Award in 2003. It goes, each year, to a prominent representative of the profession according to the decision of the Board.

In 2011, the winner is Béla Kertész who represents the Hungarian Association of Packaging and Materials Handling in WPO and is a regular member of the WorldStar jury.

Kertész wrote his doctor's dissertation based on research of shrink foils. He worked for the Hungarian Institute of Materials Handling and Packaging as head of department and later senior engineer for a long time and between 2003 and 2010 he was the General Secretary of the Association. He also wrote and edited some very important Hungarian professional books.

**Humanitarian help in Australia**

The Board of Australian Institute of Packaging (AIP), a WPO member, decided to donate US$2,000 towards the Premier's Disaster Relief Appeal. According to Pierre Pienaar, National President of AIP, the decision was taken after the huge damages caused by the disastrous and catastrophic events that have unfolded in Queensland and Brisbane, Australia. The floods devastated homes, properties, infrastructures and lives and have instilled fear in many of our fellow citizens. The water in the Brisbane River peaked at 4.46 metres and this disaster alone completely flooded nearly 15,000 homes and businesses while a further
18,000 plus were partially flooded. The national damage bill is rising fast too in the wake of flood damage in four southern states as well.

More close to the packaging reality, AIP reported that its National Executive Officer, Nerida Kelton and her husband, Mark, an AIP Membership Officer, lost all their belongings as the water covered the entire roof of their home and office. They managed to save just their computers and their dog and two cats, as they escaped with their lives.

**New environment packaging association in US**

Leading U.S. corporations recently announced they are taking steps to create a new packaging trade organization. Ameripen will engage on public policies impacting the packaging value chain on topics related to packaging and the environment, and will represent the interests of the industry which includes raw material producers, packaging manufacturers, packaging users and fillers, retailers and material recovery organizations. Corporate founders include The Coca-Cola Company, Colgate-Palmolive, ConAgra Foods, The Dow Chemical Co., DuPont Packaging & Industrial Polymers, Kellogg Company, MeadWestvaco (MWV), Procter & Gamble, Sealed Air Corporation and Tetra Pak Inc.

Modeled after Europen and Incpen, the European and British counterparts, respectively, Ameripen will advocate packaging policy developments in North America focusing on measures that are environmentally and economically sound, as well as socially responsible. It will also encourage science-based decision-making on sustainable packaging initiatives and provide a point-of-view and guidance to policy makers and thought leaders on the value and role of packaging. The President of the new Association is Joan Pierce. For more information visit www.ameripen.org.

**Brazilian packaging industry increased 10% in 2010**

The Brazilian economy is in a state of transition. After the euphoria of sales in 2010, the year promises to be more "calm". With this analysis, Salomão Quadros, Coordinator of Economical Analyses of FGV (Fundação Getúlio Vargas), began the presentation "The packaging industry in 2010 and perspectives for 2011" that marked the first ABRE event in 2010.

But the good news that all waited came: according to the FGV packaging study, done with exclusiveness for ABRE, the production of packaging increased 10.13% in 2010 after the decrease of 3.77% registered in 2009. In the 1st semester of the year, when the sector was in strong recovery, the growth rate reached 15.57% in relation to the same period in the previous year. The production generated revenue of US$ 24 billion and a level of employment superior to 220 thousand jobs. For 2011, although the scenario is a more moderate growth - about 2.2% - the revenue should reach almost US$ 26 billion.

The packaging material with the largest production growth in 2010 was wood with 24.36%, followed by metal with 16.26%; glass with 14%; paper and board with 7.25%; and plastic with 7.01%. "All the materials grew, differently from that we saw in 2009 when all had a drop in production." In the paper segment, the sacks and paper bags had the largest production growth: 10.78%. In the plastic segment the focus were on large bottles, regular bottles, flasks and similar goods with 13.35% growth and in the metal segment, the aluminum cans had a surprising 21.89% growth in production.

In value, the packaging material with largest share in the total revenue was plastic with 35.54%, equivalent to US$ 7.41 billion. The second largest revenue was registered in cardboard – US$ 3.62 billion - followed closely by metal with US$ 3.61 billion.

If there is a concern according to Quadros, it is about the trade balance of the sector that continues deficient. The US$ 410.2 million packaging exports in 2010 were low compared to the imported US$ 794 million. The merit on the success of the exports is, especially in plastic packaging where external sales increased by almost 25%.

In fact, in value, both in exports and imports, plastic packaging had superior performance compared to other materials, with respectively US$ 191.3 million and US$ 375.4 million. However, in imports, the largest growth was in metal packaging, especially aluminum, with almost 235%. The import of glass packaging also increased by almost 112%.

The jump for the metal cans in the domestic and international markets is largely explained by the growth of more than 11% in the beverage sector in 2010; it had already increased 7.08% in 2009 which indicates an accelerated growth. Food recovered and grew in 2010 – 4.39%; the sector ended 2009 with 1.66% drop. The prominences among food
products last year were: preserves and sauces with growth of 10.06%; fruit juices with 9.87%; sugar with 9.72%; pet food with 8.19%; and coffee with 6.05%.

Among the other industries that use packaging there were growth in the "brown line" (26.73%), pieces and accessories for vehicles (25.26%), inks and varnishes (17.07%) and products for agriculture (16.85%). This increase in consumption is explained by the increase in the average monthly expense of a Brazilian family. A FGV study with 57.8 million families showed that this expense increased 2.65% in 2010.

The economist says that the worst that could happen is the inflation process. "If the inflationary pressures go more resistant perhaps the government has to impose a larger period of restrictions to the economy. After all, battling the inflation means decelerating the economy!" In a positive scenario, Quadros foresees that the packaging industry increases 2.17% in 2011 and in a more restricted scenario it will practically not grow (about 0.84%).

Thanks from Japan

Mitsuhiko Sakai, General Managing Director of Japan Packaging Institute (JPI), a WPO member, wrote WPO a message thanking for all the encouragement received from packaging people in the world including WPO and APF members. He explains that the massive earthquake and tsunami that struck Japan's northeastern coast caused crucial damage to both Japanese society and industry.

He also reported that the earthquake heavily shook the JPI office in Tokyo. Some cracks were developed and a part of the ceiling fell off. Fortunately, all 23 JPI stuff members and their family were safe and sound. The office has got back to work as usual, though still suffering from the scheduled 3-hour power cut as a result of power shortage caused by the disaster. As part of the relief efforts, the Institute is working to secure paper cups, plates and bowls for the people in the disaster area, requested by the Japanese government; JPI members are supporting this activity.

APF I - New board

The Asian Packaging Federation (APF), a WPO member, has just announced its new board as follows:

- President - Safi Ullah Chowdhury from Bangladesh Corrugated Carton & Accessories Manufacturers & Exporters Association
- Vice President 1 - Mitsuhiko Sakai from Japan Packaging Institute
- Vice President 2 - Surasith Bunyabhisand from Department of Industrial Promotion, Ministry of Industry of Thailand
- Vice President 3 - Ariana Susanti from Indonesian Packaging Federation (IPF)
- Secretary General - Uraiwan Chandrayu from Department of Industrial Promotion, Ministry of Industry, Royal Thai Goverment of Thailand
- Treasurer - Vitien Nildum from Thailand Packaging Association

For more information visit www.asianpackaging.org.

It's worth to remind that APF is a non-profit organization, established in Tokyo, Japan, in 1967 to join the packaging interests of all trade and industries in the Asia-Pacific region and beyond under one co-operative umbrella. The APF Secretariat rotates among the member countries and is currently situated in Thailand.

The objectives of APF are:

- international exchange of experience and knowledge in packaging technology.
- international cooperation in education and training of packaging specialists.
- international standardization of packaging and marking.
- international co-operation for the progress of packaging industries in Asia.
- maintenance of close contact with other International Packaging organizations and Federations.
- commitments to the promotion of environmental-friendly packaging and management of packaging wastes.
Currently, APF has 14 country members: Australia, Bangladesh, China, India, Indonesia, Japan, Korea, Malaysia, Pakistan, Philippines, Singapore, Sri Lanka, Thailand and Vietnam. The Federation also organizes the AsiaStar Awards, annually, in conjunction with the Asian Packaging Congress. The event is an important forum for all Asia-Pacific packaging companies to gain recognition for their packaging design and innovative packaging solutions. Its projects to the future include to enhance communication among packaging companies and APF members, widen APF scope by approving new members from new geographical locations and allowing private businesses to become direct members.

**APF II - Packaging education**

The Asian Packaging Federation organizes and financially subsidize a training course for its members; the subjects are selected by the APF’s Education Committee. In 2010, the training course was focused on "Packaging Technology" and organized by the Indian Institute of Packaging. In addition, APF is endorsing a Distance Education Program in Packaging Technology which is managed and arranged by the member countries as well.

**Changes in China**

Zhao Nan has taken another step in her successful career from China National Export Commodities Packaging Research Institute (CEPI) to China Packaging Industry Productivity Center (CPIPC) as Deputy Director. For this reason she will no longer be responsible for the related work of WPO; the Assistant President of CEPI,. Ms Xu Ting, will take over these duties. She can be easily contacted by phone 86-10-84241236 and e-mail cepi-china@163.com. CEPI and CPIPC are both second companies of China National Packaging Corporation and are very closely connected. Nan can be contacted through phone 86-10-64515288 and e-mail cpipc_china@163.com.

**Turkey I - Packaging events**

ASD Secretary General, Doğan Erberk, gave a Seminar in Marmara University Faculty of Fine Arts titled "Packaging" in cooperation with Packaging Manufacturers Association. The seminar was attended by packaged product manufacturers, packaging designers, packaging manufacturers through the professional organisations that they are associated with, as well as by Marmara University Faculty of Fine Arts students, students from ITU, Doğuş, Kadir Has, Mimar Sinan Universities and several academicians.

The seminar started with the keynote address of Canan Erkmen, Dean of the Faculty of Fine Arts and continued with a 2-hour presentation of Doğan Erberk, ASD Secretary General and World Packaging Organisation Vice President. Erberk mentioned packaging history, packaging functions, place of packaging in modern life, packaging types and forms, sustainability of packaging, innovation in packaging, and packaging sector in the world and in Turkey. The seminar was concluded with information about ASD.

On December, the Packaging Manufacturers Association organised a seminar in cooperation with Istanbul Chamber of Industry (İSO). In the first part of the seminar Packaging Manufacturers Association Research and Scientific Matters Manager, Ashihan Arıkan, European Aluminium Association (EAA) Packaging Department Manager, Maarten Labberton, and ÇEVKO Industrial Relations Department Manager, Alphan Eröztürk, gave information about the national and international practices. The second part was with representatives from the leading sector companies Sarten Ambalaj, Anadolu Cam and Farmamak that shared with the participants their success stories in the field of "Sustainable Packaging".
Turkey II – international mission

Eleven members of Iran Industrial Managers Association visited ASD in order to get information about the activities of the Association and the Turkish Packaging Sector. After the businessmen in the Trade Mission introduced themselves and their field of business, Doğan Erberk, General Secretary of ASD, presented information about the entity’s activities, members and Eurasia Packaging 2011 İstanbul Exhibition. Participants were very interested about packaging sub-sectors in Turkey.

Country Report

Thailand: great packaging development

Similar to most countries, packaging industry in Thailand, today, plays more roles in improving product quality, adding more value and improving product differentiation. Thailand’s packaging industry produces packages at an approximate US$ 28,000 million value yearly to supply to local demand with some excess output for export to neighboring countries. Materials used in packaging industry in Thailand fall into four main categories; paper, plastic, metal and glass. The proportional usage of each material are as follows; paper 35% to 40%, plastic 25% to 30%, metal 15% to 20%, glass 12% to 15%, others 1% to 3%.

There are about 300 small and large packaging companies in the country producing a wide range of paper packaging including corrugated box, paperboard box, paper bag and multiwall paper sack. The combined export in printing, paper and paper packing is a little below $1,800 million in 2009 and the main markets are Asian countries. The export growth of paper packaging reached 25% in 2009. The future markets with high growth potential are Vietnam, India and Middle East.

Plastic packaging is growing and slowly replacing glass packaging due to the good match between quality and price. There are more than 1,200 factories with approximate capacity of 125,000 ton/year. Plastic packaging is largely used in food and beverage, cosmetic, drug, and many other consumer products. Thailand exports most plastic products to Japan, USA, UK and Asian countries with the total export volume of US$2,170 million. Packaging such as plastic bags, sacks and film strips account for a majority of plastic export products or about 50%. The two key factors that are hindering the growth of this industry are the appreciation of Baht currency and the hike in oil price.

Metal packaging is generally made from either steel or aluminum. Today, there are about 100 factories producing metal packaging such as can, box, metalized bag, collapsible tube and other metalized packages in Thailand. The growth of glass packaging lately seems stagnant because it has been replaced by plastic and aluminum packaging. There are only 30 glass packaging factories in Thailand, whereof 8 are defined as large size with capacity to produce 2,100,000 ton/year.

Future trend

Smaller households, more urbanization, higher educated consumers, and higher per capita income result in changing consumer lifestyles. Nowadays, consumers look for quality, safety, convenience and environmental friendliness, thus the packaging industry must adapt itself to cope with this change. The packaging industry must continue to innovate and improve their products. New technology and new packaging such as portable packaging for snack foods, shelf stable foods, aseptic packaging, modified atmosphere packaging, stand-up pouch packaging and active packaging must be investigated.

In Thailand, consumers have recently started to realize the important role of packaging as its function to help improving sale promotion; however, packaging related business is predicted to have great future. In order to achieve successful marketing, development of new products to satisfy consumer needs must be carried out in parallel with packaging development. Understanding the trends and innovations of packaging in developed countries will benefit the Thai exporters particularly on getting ready to compete well in the world market.
Packaging environmental concern

Thailand has been aware of and focused on the effects from post-consumer packages for decades and from incorporated efforts a number of approaches, policies and measures have been worked out and at present some are being put to practice. Resulting positive-prone achievements are expected to continue to a wider extent in future.

Thailand generate approximate 14 million tons of domestic waste yearly, of which over 50% or approximate 7.8 million tons are the post-consumer packages. From the said package waste 39% of it or 5.4 million tons, which by analysis will include half local and half imported packages, are recyclable and over Thai practices notable amount has been saved and being re-circulated domestically. As the post consumer package pollution problem became an issue long ago, responsible agencies of the Thai Government under their mandates had endeavored for the National Packaging Waste Management Plan and finalized it a few years ago.

On the private sector side, a great initiative came from Federation of Thai Industries. Thailand Institute of Packaging Management for Sustainable Environment (TIPMSE) was officially established on 20 December 2005 by four industry clubs under the Federation of Thai Industries namely the Plastic Industry Club, the Pulp and Paper Industry Club, the Glass Industry Club and the Aluminum Industry Club. The Thai Metal Packaging Association as well as other related consumer product manufacturers also participated. TIPMSE aims to reduce packaging wastes with a safe and sustainable methodology. Basically TIPMSE, a non-profit organization, is financially supported by the above mentioned Industry Clubs and the related consumer product producers. One of the key projects for TIPMSE is to reduce packaging waste by 12% in five years.

Since the packaging concern involves an array of agencies, both public and private sectors, other than our Ministry of Industry which takes responsibility directly for production, other agencies such as the Ministry of Natural Resources and Environment, the Ministry of Science and Technology, the Ministry of Public Health etc. even the Ministry of Interior also come to join the mission. Contributions and assistances from independent institutions such as the Thai Environmental Institution, the Federation of Thai Industries and some prominent package manufacturers also help strengthen the post-consumer package problem management to be more efficient. The packaging in our view is not for its production and supply only, but must include all concerns as a package and we are sure this is what all members see and move forward together.

For more information visit the webpage of Thailand Institute of Packaging Management for Sustainable Environment (TIPMSE) www.tipmse.or.th.

WorldStar

The big Awards Ceremony

The WorldStar Awards Ceremony will take place on Tuesday, 17th May in Dusseldorf during the second week of Interpack. Sponsored by Pack Expo, the evening will commence at 16:00 with the arrival of guests. The evening will include a presentation from Sanjay Bhatia, Hindustan Tin Works Ltd., the WorldStar Awards Presentations, the announcement of the Sustainability Award Winners and the President's Award, followed by a Cocktail Reception.

Pack Expo have kindly donated a trip to Pack Expo Las Vegas and this will be raffled off during the evening.

Tickets are €25 and can be ordered direct from rachel.brooks@worldstar.org | www.worldstar.org; www.worldpackaging.org

WorldStar Student 2010

The China National Export Commodities Packaging Research Institute (CEPI) did an outstanding job of managing the competition and the ceremony of the WorldStar Student Award 2010. The ceremony was held in December 2nd 2010 in the university city of Chengdu, in Western China. The Art College of Sichuan University hosted the proceedings. Starting from the decoration, it was easy to recognize all the efforts put in into staging the event: large corrugated boxes, printed with the competition theme and the WorldStar graphics, lined the road leading up to the Art Centre building. The entire front walls of the facility also beard the same graphics.
The opening ceremony was held in the foyer of the presentation halls. CEPI and the Art College invited some renowned design artist in China to participate at the opening ceremony. This created as huge excitement among the students as they came face to face with these highly regarded professors and business executives. Once the proceedings were over the gallery was opened for review. The gallery contained large pictures of the WorldStar Student's winning entries.

Keith Pearson, President of WPO, was the first speaker in the International Packaging Design Forum that preceded the WorldStar Student Award Ceremony. Proceedings were made exciting as the Art College students put on some very interesting and colourful dance and song items. All the winners can be seen in www.worldpackaging.org. Sichuan JNC Group Co. Ltd. sponsored the WorldStar Student Awards function. The company produces liquor and is located about two hours from Chengdu.

Education

IoPP offers free online training to WPO members

The Institute of Packaging Professionals (IoPP), a WPO member from US, is offering all WPO members free access to a 12 hours online training in packaging. These education sessions were originally presented as part of the conference during the PackExpo show in Chicago, last year.

Normally available for purchase for $99 per session, these programs are being offered at no charge through WPO, in support of the Organizations’ mission of sharing packaging education and information throughout the global packaging community.

WPO-member associations may offer these sessions at no cost to all of their members. The available sessions are:

- Packaging Innovations Future: Where the Metrics are Pointing Us
- The Effects of Cartons, Pressure Differential, and Hole Size on Microbial Ingress of Sterile Medical Device Trays
- Packaging Law Right This Minute
- Packaging 360
- Cargo Securement for Intermodal Transit - Global Regulations and Methods Available
- Simulating What Happens to My Goods from Point A to B
- The Real Green of Sustainability in Transport Packaging
- Meet the Press: Panel Discussion on Packaging Trends
Institute of Packaging Ghana holds first graduation ceremony

March 3rd 2011 was a memorable day in the history of the Institute of Packaging, Ghana (IOPG), a WPO member. The day marked the graduation of the first batch of six students who successfully completed the 10-month Diploma in Packaging Technology Training Course organized jointly by the IOPG and the Institute of Packaging South Africa.

Of the seven students who enrolled for the course in February 2010, six students sat for and passed their examinations with two of them obtaining distinction and one dropping out due to pressure of work. The graduates received membership certificates signifying their formal admission into the IOPG. The second batch of nine students who enrolled for 2011’s program in February was formally admitted into the program.

Kofi Essuman, President of IOPG, stated in his address that Ghanaian packaging converters and users are unable to meet the demands for high quality packaging due to several constraints including inadequate skills in packaging technology caused by the absence of institutions for training. The Diploma in packaging technology course will be an essential platform for building human capacity in order to close the yawning gap in packaging skills in Ghana.

Delivering his keynote address, Fares Akl, Managing Director of Qualiplast Ghana said that plastic packaging has revolutionised the packaging industry in the last four decades. The discovery of oil in Ghana is likely to transform the packaging industry immensely. It is therefore time to train people not only in the upstream oil drilling technologies but also in the downstream oil refining and allied industries such the manufacture of plastics and their derivatives.

The Chairperson for the occasion, Prof. Esther Sakyi – Dawson, Senior Lecturer at the Nutrition and Food Science Department of the University of Ghana, commended the IOPG for the brave effort. She said "good things start small and urged the IOPG to acquire the requisite facilities that would enable them to attract more students".

Indo-African Forum Summit

As part of the cooperation program for training and capacity building under the India-Africa Summit, a two week training in Food Packaging Technology was organized in Mumbai from February 1st – 15th 2011. The training was attended by 14 participants from Ghana, Nigeria, Ethiopia, Madagascar, Mali, Niger, Zimbabwe, Sudan and Botswana. The Ghanaian participants were Prince Agyenim-Boateng (Director, PD House Kumasi) George Tutu Yeboah (Production Manager, Fan Milk Ltd), Emmanuel Kwasi Asare (Ghana Standards Board) and Ebenezer Mante (Coordinator, Institute of Packaging, Ghana-IOPG). The project was implemented by The Ministry of Food Processing Industries, Government of India, sponsored by Ministry of External Affairs and coordinated by the Indian Institute of Packaging, IIP.
The course gave a complete overview of food packaging and covered the following topics:

- Basics of packaging principles and concepts
- Packaging materials – corrugated fiber board, paper and paperboard, glass containers, metal, flexible plastics and composite containers
- Packaging of food products – packaging of processed foods
- Food safety and food testing techniques
- Product package compatibility and shelf-life
- Packaging systems – retort and aseptic packaging systems
- Stretch and shrink wrapping, unitization and transportation of unit packs
- Controlled atmosphere packaging/modified atmosphere packaging/ smart/ active packaging
- Printing processes and printing inks
- Packaging & environment – recycling and reducing solid waste and aspect relating to recycling and re-use of packages

In addition to classroom lectures there were visits to the following industries and institutions: Food Research & Analysis Centre (FRAC), Rexam HTW Beverage Can, Fibre Foils, Hindustan National Glass & Industries, The Paper Products, Jayna Packaging Pvt. and the laboratories of the Indian Institute of Packaging.

To translate what was taught into practice, participants were assigned the following packaging design projects:

- 1: Consumer and Transport pack for Ready-to-Eat salads
- 2: Gift Pack
- 3: Combo Pack for ready meal
- 4: Cake pack

The training ended with a colorful closing ceremony during which prizes were awarded to participants for excellence in various areas of the course such as project work, quiz, interaction, and discipline among others.

The two week program had a lasting impression on all participants looking at the in-depth knowledge acquired as well as the incredible cultural experiences they were exposed to. It is our belief that this partnership between India and African would continue in order to develop the capacities of African professionals in fields such as packaging technology.

---

**Special Article**

**Naples, mafia, pizza and mountains of waste**

*By İlkay Kiran Öztürk*

Those must be the three words that you will encounter the most when you make a little search about Naples. As the third biggest city of Italy and an important place in terms of history, art, culture,
architecture, music and astronomy, Naples has still not managed to solve the waste crisis.

Naples is very significant in the Italian history with its 2,800 years of background and for being the capital of Naples Kingdom (which was an independent state between 1285–1816). The old city centre of Naples located on an area of 720 hectares is on the UNESCO World Heritage List.

The waste crisis in the city which remains current for 16 years has already become a problem for the entire European Union. The waste is accumulated on the streets of Naples have already exceeded the borders of Campania city.

According to an announcement by the Italian Environmental Organisation Legambiente, until 1994 waste management in the city was in the hands of mafia, then waste collection plants were taken over by local governments during the Mani Puliti (Clean Hands) investigation period. However, the project had to be terminated before it was completed because of political fights and polarizations.

The people in Naples try to eliminate the piles of waste in front of their homes by burning them. However, this uncontrolled incinerating operation causes big fires in the city. There may be as much as 100 fires in only one night that the Naples fire brigade works to suppress.

The mafia organization called "Camorra", which is claimed to be the biggest reason of the waste problem in Naples growing so much, has been making serious efforts to prevent the building of disposal plants because it has been earning money over this issue. And these efforts are causing Naples to become a city of wastes.

The lack of a sufficient number of landfill plants in the city prevents the solution of this problem. Italian Prime Minister, Silvio Berlusconi, made an explanation four months ago saying that wastes would be removed from the streets in three days. However, there is not a clear solution yet.

Waste collection and recycling is a very big sector and, given the large dimension of money circulation in this sector, it is known that the mafia organisation is the reason why these problems in Naples have not been solved for years.

**Why does mafia love wastes?**

When crisis arose in Naples because there have always been an scanty of landfill plants since the middle of 1990's, Camorra stepped in and made high levels of unearned income from waste trading. It caused the formation of mountains of waste by uncontrolled dumping of wastes collected from Naples and other cities in Italy as well as wastes imported for purposes of disposal. Starting to import industrial and dangerous wastes besides domestic wastes, Camorra left the public face to face with the risk of epidemic. Hereby, began waste trade without any disposal expenditure for tons of hazardous waste.

The crisis that occurred in 2008 had ended when Berlusconi government made the military forces collect the wastes that had piled up in the streets of Naples and promised that public health will be taken into account in all actions regarding wastes.

It was revealed in the past months that Camorra had sent 300,000 tons of waste to a currently inactive waste treatment plant near Leipzig, Germany. Thus, German courts also intervened with the crisis.

Camorra is still trying to prevent the establishment of waste incineration plants which is considered as the best solution to the waste problem. Italian government said that they have spent more than 2 billion euros so far for the solution; however, they have still not found the way out.

It is said that the amount of wastes that have recently piled up in the streets is 3,000 tonnes. Schools may
be closed down for a certain period. Italian Prime Minister said "Schools will not be closed because there is no difference between staying at home and going to school in terms of health risks". However, some municipalities said they will not be obeying Prime Minister's decision in order not to put public health at risk.

**Solution to the crisis**

The main reason why this chaos has not been solved yet is that there are no specific waste management plan and no waste disposal plant projections for Naples, that the local government is ineffective and that this crisis is one of the means of benefit for Camorra mafia.

European Union Environmental Commission said that they are planning to collect fines if the Italian government fails to find a solution to this problem in a near future. Italian government must be more influential on Camorra so that local government can create an effective solution for waste management.

Otherwise, the waste crisis in Naples is changing dimensions. Taking their health into consideration when changing the city, the public puts mafia, which is against change and which benefits from such crisis, face to face with local governments. This turns the problem into a government crisis that affects the entire country.

*This article does not reflect WPO opinion. All responsibility is from the author İlkay Kiran Öztürk is Environmental Engineer, M.Sc. and Research and Scientific Issues Specialist of ASD (Turkish Packaging Manufacturers Association), a WPO member.

**The future of Australia's packaging industry**

*By Pierre Pienaar Faip*

**Introduction**

Any packaging consultant would love the gift of prophesying but, sans that, there are some clear trends that have emerged in the packaging industry which warrant serious attention if participants in this very important sector of the market were to keep up with change.

**Sustainability**

Sustainability is a major trend affecting operations in packaging. No fewer than five speakers focused on this important issue at the recent National Conference for the Australian Institute of Packaging (AIP). Considerations in this area are now a fact of life with bioplastics and renewable resources such as sugar cane being serious participants in the event. But consumers still require greater clarity around what is really sustainable. They are increasingly interested in their personal impact on the environment and are demanding more from manufacturers. There is a need, therefore, for ongoing discussions about codes, standards and oversights. If this issue is not to be pie-in-the-sky stuff, Australia's packaging industry needs to participate seriously in coordinated and cooperative efforts around global packaging sustainability and develop honest measurement tools for the manufacturing industry to consider.
Food Safety

While sustainability is high on the agenda of manufacturer and consumer alike, food safety remains the number issue for the public and will continue to affect packaging materials. Companies are under increasing pressure to develop new packaging which ensures healthy, safe, yet quick-to-consume products. Companies need to remain mindful that product recalls or liability cases and the resultant loss of customers can be an immeasurable cost compared with the expense of improving packaging which prevents mislabelling, spoilage, product-tampering or contamination. Consumers’ demand for smaller, healthy portions will increase the demand for new packaging of existing products.

Private Labels

The growing private label industry now represents a threat to the branded product. Ever encroaching shelf space by private labels which do not carry the burden of the branded product’s large advertising-marketing budget is an indication that this sector of the packaging industry can no longer be ignored. In 2009 private labels were responsible for 45% of products sold in Europe and 25% in the USA. The packaging industry needs to accept that consumers have matured in this area of purchase. Whereas retailers and consumers were once loathe to experiment with non-brand items, the private label market has been intent on improving the quality of its product. In Australia, this has been most evident as private label sales have continued to grow. Our challenge now is to capture and expand into the less saturated, emerging markets of Asia. Manufacturers and marketers, however, would be wise to remember that a product with no brand history to depend on will heavily rely on its quality to do all the advertising promotion. Never can one assume that a third world, emerging nation would be prepared to spend its hard earned, meagre income on an inferior product just because the label offers the discount.

Packaging Enhances Product Value

Internationally and nationally branded consumer product companies and their partners subsequently need to respond by offering their customers enhanced value in the packaging. Some companies have commenced by redesigning packaging to more strongly differentiate their brands. If the pack is all you have in a quality, price-competitive market, innovation becomes a priority. Packaging uniqueness is forecast to be a major differentiator for successful products with colour coding on packaging within a product line being a preferred trend. Busy consumers have identified that colour coded products help them distinguish between products.

Economy and Education

While we have not yet fully recovered from the worst economic slump in decades, trends from this recession include an increased demand for refurbished or upgraded packaging machinery and surges in the demand for co-packing and contract packaging operations. The lean experience has resulted in cutting costs throughout the industry in order to survive. Reduced labour costs, introduction of automation and technology, rigorous evaluation of all expenditures in order to maintain productivity and the elimination of poorly performing business lines and products has meant only the best can stay.

Are you among the best? Have you ensured that you can compete with the best? Management consultants for retailers, wholesalers and manufacturers suggest that the packaging industry will suffer if it does not take itself seriously enough and ensure that its participants are continually being educated to improve packaging knowledge and skills. I’d like to suggest that back-to-strong-basics, consolidation of business, a cooperative, consultative approach within the industry underpinned by ongoing education will ensure you reach the future in a vibrant industry.

*Pierre Pienaar Faip is newly elected National President of AIP (Australian Institute of Packaging), a WPO member.*
Technical Article

BRC/IOP Global Standard for Packaging and Packaging Materials Issue 4

An overview of the key changes to the Standard between Issue 3 and 4.

By: Gordon Stewart

In the UK, The Packaging Society (which was formally the Institute of Packaging), has worked with the BRC which represents retailers, to produce the Global Standard for Packaging and Packaging Materials. Internationally, over 1,600 sites are accredited to the standard and the 4th edition has just been published.

Whilst the principles of the Standard and broad expectations remain unchanged, Issue 4 has been substantially rewritten and the operation of the scheme updated to add value for packaging manufacturers, retailers and other users.

This overview is designed to identify the most significant changes and improvements to the Standard. It does not provide a comprehensive list of every change and in order to prepare for an audit, or understand the changes in detail, it is necessary to purchase a copy of the Standard (see below).

Key changes

- The scope of the Standard remains the same, encompassing Packaging and Packaging Materials. However, Issue 4 provides greater focus on quality control and the functional properties of packaging, which compliment the established hygiene requirements.
- The number of risk categories has been reduced from three in Issue 3 to two, based on the hygiene risk. The categories are entitled "High Hygiene Risk Category" and "Low Hygiene Risk Category," and can be broadly defined as food or non-food packaging.
- A Preparation and Planning section provides guidance and support for sites new to the scheme's audit and certification process.
- Senior Management Commitment – there are new clauses to demonstrate senior management involvement and commitment to the Standard, including setting and reviewing objectives for improvement. The quality policy has been moved into this section to emphasise its importance within the context of senior management commitment. This section is identical in both risk categories.
- Slight changes have been made to the Hazard and Risk Management section, to reiterate the importance of the use of a multi-disciplinary team to manage and review the implementation of the Standard, and to clarify the role of exemptions to the Standard found through the implementation of the pre-requisite programme.
- The Product Safety and Quality Management System section have been extensively reviewed and enhanced to ensure the clauses are clear and add value. Notable inclusions are around establishing customer requirements as a function of customer focus; the requirement for a declaration of compliance as a greater emphasis on the functional and physical properties of packaging materials; and focus on the processes surrounding incidents, product withdrawals and recalls.
- Site security measures have been extended to reflect the increased concerns in some regions of the threat of malicious contamination.
- There are considerable changes in the requirements for managing packaging print control. The aim is to ensure that essential criteria, such as allergen information, are fully legible and correctly printed. This section also makes requirements for adequate segregation of printed packaging to prevent mixture of packaging types, particularly where composite or 'gang' printing is use. This formalises the general good practice followed by many packaging printers and reassures retailers and end-users of the integrity of the information presented on the packaging.
- Those familiar with the BRC's Food Safety and Consumer Products schemes will recognise the principles of grading contained in those. This has new been extended to packaging and the grading thresholds are in line with the other Standards. An A or B grade requires a 12 month audit frequency and a C grade a 6 month one. D graded sites will not be certificated.
- "Fundamental" Clauses have been introduced, relating to systems that are crucial to the establishment and operation of effective packaging manufacture. Consequences for major non-conformities against these are also now in line with that of the Food Safety and Consumer Products Standards and where such a non-conformity has been identified the site shall not be certificated.
- Finally, detail has been added to the Standard to incorporate information on the operation and governance
of the scheme. This is to inform users of the Standard how the schemes are operated.

The scheme becomes operational on 1 August 2011

A copy of Issue 4 can be ordered from www.brcbookshop.com. Language versions other than English are in preparation – further details are available on the web site. An interpretation guideline for Issue 4 of the Global Standard for Packaging and Packaging Materials will also be available in summer 2011.

More information contact Gordon Stewart by gordon.stewart@iom3.org.

---

**Highlights**

**IAPRI’s 40th anniversary and big Symposium**

In 2011 IAPRI - International Association of Packaging Research Institutes, in which WPO is a member, is celebrating its 40 years anniversary. As part of the celebrations, the Association will organize the Berlin Symposium from May 16 to 18. "Much has changed over 40 years and, in particular, over the last 15 years, from new membership criteria to peer-review and internet links for our Working Groups," says president Thomas Goedecke. And complete: "now we have around 80 member institutes!" The complete program of the Symposium can be seen at www.iapriweb.org.

**Ipack-Ima 2012 has a new President**

Paolo Barilla, vice-president of the eponymous industrial group and president of AIDEPI (Association of the Italian Pastry and Pasta Industries), has been named as President of the next edition of Ipack-Ima scheduled for February 28th to March 3rd 2012 in Fiera Milano, Milan (Italy). Last December, Barilla was elected first president of the newly established AIDEPI, a new association part of Confindustria grouping the Association of Italian Pastry Industries and the Association of Italian Industrial Pasta Makers. This is the first body representing "Made In Italy" food products, with around 130 associated companies and employing 36,000 workers, and playing an increasingly important role in the food industry worldwide.

Ipack-Ima represents a key technology showcase for the pastry and pasta industry at a global level, with its extensive display of machinery for the pasta industry and for grain-based food production. It is a comprehensive exhibition which, with processing, packaging and material handling technology and equipment, displays the world’s top-range production to the food and non-food markets. The previous edition, held in 2009, featured 1400 exhibitors, 28% of whom from outside of Italy, and was visited by 54,000 qualified industry professionals, 25% of whom from 116 different countries outside of Italy. For more information www.ipack-ima.com.

**Cropak 2011 festival of packaging**

From May 5th to 6th the 8th international packaging festival Fest.A Cropak 2011, will take place in Zagreb, Croatia. Organized by Croatian Institute of Packaging and Graphic Arts, a WPO member, Tectus company and Ambalaža/REGprint trade journal, it will count with the international conference "Trends in packaging industry", as well as with a commercial exhibition and the Cropak and Regpak award nominees exhibition and a student creative workshop. Cropak 2011 award ceremony will be for the best packaging in Croatia and Regpak for the best packaging in the region.

There will be also an organized visit to the Vetropack Straža, a glass packaging factory. The Festical attracts packaging professionals from the region - Bosnia and Hezegovina, Croatia, Macedonia, Montenegro, Serbia and Slovenia. For more information visit www.ambalaza.hr/en/festacropak/2011/.
Executive Commitee Report

Three meetings, hundreds of decisions

The WPO Executive Committee have met three times in 2011 through internet conferences; two in February and one in March. In all them, members of the Committee that participated were Keith Pearson, IOP, South Africa and President of WPO; Carl Olsmans, Innventia, Sweden and General Secretary of WPO; and the Vice Presidents Gordon Stewart, IOM3, UK, Luciana Pellegrino, ABRE, Brazil, Tom Schneider, IoPP, USA, and Dogan Erberk, ASD, Turkey. Rachel Brooks, WorldStar Administrator, IOM3, UK, also took part as observer and meeting Secretary.

The executive committee deals with upcoming operational issues between Board Meetings. Decisions and activities in the Committee are presented at Board Meetings for approval. Some of the recent issues discussed in the internet meetings were:

- Planning of the Interpack meeting arrangements including sponsorship opportunities and deals.
- WorldStar Winners' Brochure/Book - Packaging Today is producing the brochure on behalf of WPO. Advertising opportunities have been presented to winners and others.
- Endorsement of Education Programmes. Gordon Stewart have prepared a proposal, now circulating among WPO members. The target is to have some endorsed programmes in May.
- Development of WPO e-magazine, where a commercial proposal is now being evaluated.
- Publication of Position Papers, where new themes underway are: Use of LCA in packaging evaluation; Packaging & Marketing; Packaging awards and Packaging contribution to economy and society. Target launch is at Interpack.
- A proposal for a new process for WorldStar Student.
- The APC Tower Hangzhou office proposal from APC for WPO.
- A newly formed association in Kazakstan wants to join WPO.

More information on the activities can be offered to WPO members. Please contact the General Secretary, Carl Olsmans by e-mail carl.olsmans@innventia.com.

Market & People

Contribution to the future

The activity named "Little Things Renew the Nature" organised by Tetra Pak with contributions from WWF in order to increase the use of renewable resources all over the world and to establish environmental awareness is now being introduced to students in Gaziantep, Turkey. Within the scope of the activity which has been going on for seven years, environmental training has been provided to about one million primary education students all over the country so far.

The company has been carrying out this activity in order to permanently raise environmental awareness of future generations. Tetra Pak has reached one million primary education students in 11 cities so far as part of the activity which has been conducted with the cooperation of the Ministry of Education, The Ministry of Environment and Forestry and Eskisehir Anadolu University. In Gaziantep, a total of 50 thousand students have been targeted. The activity started at the beginning of January and will continue during 2011.

In the schools that are being visited, children are given detailed information about how to care for energy and water savings; to give priority to the use of renewable resources and of materials made using such resources; the fact that packaging wastes are valuable raw materials and that they have to be collected separately from wet wastes. The families are suggested to support the education of children at home and to care about the recommendations that children make based on the information they acquire at school.
New chairman in carton board

Alican Duran has been appointed as the Chairman of Carton Board Packaging Manufacturers Association (KASAD), from Turkey. According to him: "KASAD members achieved a big success by reaching global standards in terms of service and quality in a fast developing packaging sector. In that sense, we are planning to make a breakthrough in 2011 in both local and export markets. In the new period, we have also aimed at promoting the paper-carton packaging as a modern form of packaging that is environment friendly and spreading and encouraging its use".

Acquisition in film

As the biggest BOPP & CPP film manufacturer in Turkey and one of the leading producers in the world, Polinas Plastik Sanayii ve Ticareti A.Ş. started 2011 with an important acquisition. Polinas agreed with the Italian M&G Group for purchasing all shares of Nuroll SpA which is a group company and the number one food packaging film (BOPET) producer in Italy. According to Yildiz Holding Packaging, Informatics and Estate Groups Group the technical know-how of Nuroll SpA will give support to Turkey in its pursuit of developing BOPET production and expanding the flexible packaging range for customer applications. Nuroll SpA has been making BOPET production since 1988 with an annual capacity of 20 thousand tonnes.

Now Polinas is planning to build a huge BOPET production plant in Manisa by using Nuroll's know-how. Having started its investments in Manisa Organized Industrial Zone, the company will invest US$ 150 million in the new plant that will include three production lines. Upon completion of this plant, Polinas will, by the end of 2013, be one of the biggest companies in Europe in the field of flexible packaging production (BOPP+BOPET) and will employ 450 people in the new plant.

Credits:

WPO News is an electronic publication from WPO – World Packaging Organisation – www.worldpackaging.org

Coordination: WPO’s President: Mr. Keith Pearson / WPO’s General Secretary: Dr. Carl Olsmats / ABRE – Brazilian Packaging Association: Mrs. Luciana Pellegrino / Miss Isabella Salibe

Contribution: WPO Members

Publishing: ABRE – Brazilian Packaging Association – www.abre.org.br

Responsible Editor: IPPO Member - Liliam Benzi - Journalist Mtb 19.352 – Brazil – ldbcom@uol.com.br

Diagramming: ABRE – Brazilian Packaging Association - Mrs. Mônica Carvalho

Photos: Contribution of WPO members