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Domino India promotes sustainability with coding automation



Cosmo Films commissions **BOPET** line for specialty **PET films**



Interview with Dharini Joshi of Trio Motion Technology India



SCARA Why Interface When You Can Integrate? One Supplier - One Controller - Multiple Drives - Multiple SCARA







ASHOK CHATURVEDI SPEAKS AT ALLIANCE TO END PLASTIC WASTE

UFlex showcases pioneering expertise in building circularity in MLP

shok Chaturvedi, chairman and managing director, UFlex, shared his insights to build circularity in multi-layered plastics packaging at the Alliance to End Plastic Waste (AEPW) board meeting, held on 30 November 2022, at the New York Stock Exchange (NYSE), New York. UFlex is credited to be the first company in the world to recycle mixed plastic waste (since 1995) from its recycling facilities in Noida, NCR-India and has been recognized for its efforts by the Davos Recycling Forum and by the Government of India.

At the AEPW board meeting in New York, Chaturvedi made a strong case for the continued and ubiquitous use of multi-layer mixed plastic (MLP) that provides a barrier that is required for packaging of a number of essential items including food products; enables high-speed packing; are cost-effective, and are 100% recyclable.

Chaturvedi's presentation to the AEPW Board included a virtual walkthrough of the UFlex recycling facilities at Noida, Poland and Mexico to recycle and upcycle post-consumer multi-layer mixed plastic waste into value-added household and industrial plastic products



Ashok Chaturvedi, chairman and managing director, UFlex

such as dustbins, outdoor furniture, and more. UFlex runs an advanced injection molding facility at its Noida site and this was established to recycle granules and to demonstrate various possibilities to the molding industry. Today, decorative, functional, engineering parts, household and office products, and hundreds of other articles are being manufactured with recycled granules at UFlex's recycling facilities.

According to UFlex, it has recycled more than half a million tons of multi-layer mixed plastic waste so far and has spent more than 20 million US dollars in the last financial year at its Poland and Mexico sites.

As an industry leader in building sustainable flexible packaging solutions, UFlex runs a global sustainability initiative called 'Project Plastic Fix'. This initiative is aligned with the company's sustainability approach of 4Rs to tackle the challenge of reducing stock and flow of plastic waste in the environment, i.e., reduce plastic at source by manufacturing and using films made from PCR; recycle via upcycling and downcycling of multilayer mixed plastic and PET containers, covers, other articles and bottles; reuse as source substitution via pyrolysis; return to the planet in the form of biomass, if the plastic waste remains uncollected.

Chaturvedi volunteered to provide technical knowledge and related support to any organization or country that would like to replicate and scale recycling infrastructure to pivot to a circular economy. He urged brand owners and civic bodies across regions and countries to collaborate and strengthen the recycling value chain.

CONVERTING BIOLOGICAL WASTE INTO RESOURCES

AIMPLAS produces plastic film from coffee waste

onverting biological waste into resources is one of the keys of the circular economy, and the main objective of the European WaysTUP! Project, financed by the Horizon H2020 programme, is working on different lines of research

to establish new value chains for the use of urban biowaste. Within the framework of this project, AIMPLAS, the Plastics Technology Centre, has produced a plastic film from used coffee grounds, thus transforming waste into a source of high-value products.

Nuria López, the project's principal investigator at AIMPLAS, said, "WaysTUP! is a clear example of how biowaste can play an important role in the transition towards a circular economy by avoiding biowaste generation and harnessing its potential as a source

OPINIONS BY INDUSTRY LEADERS

Packaging in 2023 – what industry experts say

As we move into a new year, it's time to ask what kinds of trends, priorities and disruptive innovations will be the key drivers in 2023. We spoke to several packaging experts about the year that has passed by, and challenges and opportunities for the industry in 2023 and beyond.

"Adaptive manufacturing will play prominent role" — Dinesh Mungi of B&R

Manash Das: How has 2022 been for the packaging industry?

Dinesh Mungi: The packaging industry being consumer-driven has seen organic growth — this leads to attracting innovative manufacturing practices and an evolution in packaging techniques too. Steady growth is seen, particularly in the FMCG and cosmetic packaging with OEMs and End Users investing substantial amount to maintain and capture new market areas. Good packaging with pertinent contents and other important information mentioned on the label has seen a major acceptability to innovative techniques. Thus, this has uplifted a few of the other industry sectors too where packaging plays a major role.

2022 especially has rooted a lot of impact with sustainable packaging, as this is one of the key environmental concerns at present and in the coming years for reducing packaging waste. With a view to elevating manufacturing techniques and processes, adaptive manufacturing is playing a significant role in OEMs' collaboration with the B&R team to innovate packaging machines and reduce the machine's footprint while

maintaining the required production throughput.

Manash Das: What about the challenges?

Dinesh Mungi: As consumers are increasing, their demands are increasing as well. Today's consumers search for products that are best suited to their needs or personalized for them. This led to the challenge for manufacturers to produce customized products and that too at higher production speeds than before. It is not



Dinesh Mungi, packaging expert and branch head, B&R – Pune region, India

feasible to overcome this with already existing setups because of the less flexibility and high changeover times.

Another challenge that is of concern is the packaging waste going to landfills creating environmental issues. The industry is working on major sustainability goals to adapt to environmentally friendly packaging techniques and the process is upgraded to reduce wastage during production.

Manash Das: What can the industry expect in 2023?

Dinesh Mungi: To cater to the market demand by increasing the production rates while keeping sustainable manufacturing practices, the industry will adopt new technologies and innovative products which will make the machines smart and more efficient. Adaptive manufacturing will play a prominent role to enable manufacturers to implement intelligent track technology integrated with robotics, machine vision and digital twins. This will lead the manufacturer to succeed in a world of mass customization, eCommerce, direct-to-consumer and omnichannel strategies.

"Despite significant growth, the industry is facing several headwinds" — Pankaj Poddar of Cosmo First

Manash Das: How has 2022 been for the packaging industry?

Pankaj Poddar: The packaging and film industry in India observed a constructive year in 2022. Expanding at a rate of 25% annually, packaging is one of the rapidly growing industries in India. The industry has noticed a growth in demand and has been able to meet the prerequisite with increased production. Consumption of polymers in the packaging sector is higher than the rest showing the popularity of polymer-based packaging given its lower weight and significantly lower carbon footprint. Plastic packaging is also strong and durable, making it ideal for protecting products during transport and perfect for creating custom packaging designs.

The growing popularity of e-commerce and the increasing preference for sustainable packaging are some of the major trends impacting the industry. The government has issued new guidelines for developing a circular economy by issuing Plastic Waste Management (Second Amendment) Rules, 2022. The regulations are based on Extended Producer Responsibility (EPR) principle and the 3R's of Reduce, Recycle, and Reuse in order to push for a circular economy.



Pankaj Poddar, Group CEO, Cosmo First

Manash Das: What about challenges?

Pankaj Poddar: Despite significant growth, the industry is facing several headwinds. The supply is continuously growing faster than demand, putting pressure on margins. Polymer has the lowest carbon footprint but still gets negative publicity due to the poor waste collection in many parts of the world. The geopolitical tensions and the correction in the supply chains is putting fuel to the fire.

Manash Das: What can the industry expect in 2023?

Pankaj Poddar: The margins are expected to remain under pressure. There is a need for continuous innovation within the industry. Some of the challenges for recycling can be better managed by having standardization and avoiding small packs, especially for toffees, mouth fresheners and gutka.

Brands will choose chlorine-free, transparent barrier films, and coated films that do not impede the recycling process. As we progress toward the objective of a circular economy, it is critical to invest in materials with more reuse potential. The future of packaging is more sustainable and efficient. Polymers will stay in demand for their durability, strength, and design flexibility, and they find special and inventive applications in a variety of industries, including consumer technology, packaging, aerospace, building and construction, healthcare and medicine, and everything in between.

"One trend that has solidified is to achieve a more sustainable packaging production" — Tucker Norton of DuPont

Manash Das: Please tell us about the challenges, trends and opportunities.

Tucker Norton: The global pandemic and associated circumstances have turned the world upside down for some time, but the packaging industry in general has maintained momentum throughout the last few years. Most regions have returned to what's commonly described as 'the new normal' by now, but new challenges came up - a war in Europe, surging energy and raw material costs and tense supply chains.

We, at DuPont Cyrel Solutions, have put our focus on ensuring stable and high-quality supply, while continuing to deliver new products and solutions that improve our customers' position in the market. One trend that has solidified is to achieve a more sustainable packaging production. This will impact every party in the packaging value chain more and more. So we concentrate our efforts on developing higher efficiency and more sustainable products.



Tucker Norton – global business leader, DuPont Cyrel Solutions

Industry Trends

Manash Das: How important is the India market?

Tucker Norton: India will continue to be one of the growth engines for packaging production. We

expect continued increase in packaging volume, but also in the adoption of flexographic printing, given the increased efforts on packaging sustainability. DuPont Cyrel, fortunately, has a very strong and capable local organization, that is able to support customers to grow and perform on a world-class technical level. We support various demo facilities with equipment, consumables and know-how. These are available to our customers for tests and training in India.

"Recycling and use of recycled content is getting evolved faster than before" — Jeevaraj Pillai of UFlex

Manash Das: Packaging industry in 2022 and trends in 2023...

Jeevaraj Pillai: Consumer markets are experiencing rapid growth, especially in the food, personal care, and pharmaceutical industries and coupled with phenomenal growth in e-commerce sales, the packaging industry continues to register robust growth. Flexible packaging is gaining preference over rigid packaging alternatives, as it is lightweight and cost-effective. Research by allied market research indicates the size of the global flexible packaging market at USD 68.5 billion in 2021, which is projected to reach USD 102.8 billion by 2031 at a CAGR of 4.2%.

Notwithstanding the proliferation of new packaging options, sustainability, smart packaging solutions and reusable/recyclable packaging were the notable trends in 2022. Going into the New Year, several brands will rethink their ESG strategies to deliver on their stakeholder expectations, make progress on their carbon reduction journey, and address other environmental and community concerns with reference to non-recycled waste.

Manash Das: How will Environment, Social, Governance (ESG) create long-term value for the packaging industry?

Jeevaraj Pillai: Environment, Social, Governance reporting will continue to attract attention across the globe, particularly in the packaging industry. To combat the growing environmental crisis, manufacturers and brands will actively establish sustainability goals that will help reduce their carbon footprint and keep waste out of landfills. Packaging companies will also adopt biodegradable materials and recycled content in flexible packaging. Packaging manufacturers will focus on source reduction by going thinner; source substitution by replacing hard-to-recycle components.



Jeevaraj Pillai, joint president, flexible packing business and new product development, UFlex

Manash Das: How will reusability and recyclability evolve in 2023?

Jeevaraj Pillai: Due to rising awareness among consumers and an increased focus on sustainability by brand owners, recycling and use of recycled content is getting evolved faster than before. This will continue to evolve in 2023. Consumer awareness will motivate manufacturers to further invest in R&D to produce packaging that can be upcycled, recycled or reused.

The lack of waste collection infrastructure is driving the development of biodegradable packaging material. Many countries including India have started legislating use of biodegradable material for packaging and we should see concrete steps in this direction in the year 2023.

Manash Das: How do you envisage the role of improved utility, aesthetics and cost optimization?

Jeevaraj Pillai: Packing solutions will aim to deliver on consumer demand for easy-to-carry options and easy-to-dispense options for retailers. We will also see a faster transition from rigid packaging to flexible to reduce cost and source materials. Brand owners will seek and adopt more anti-counterfeiting options and improved aesthetics by using holograms, tactile printing and subject-highlighting techniques.

Manash Das: How will smart and interactive packaging offer extended functions beyond the protection or containment of the product?

Jeevaraj Pillai: The future of design in packaging is smart and interactive packaging. By utilizing augmented reality, virtual reality and QR codes, manufacturers can attract end-consumers to interact directly and more frequently with their brands. Shelf life identification, aroma detection and food quality detection inside a pack will become the norm.

Conclusion: As the world moves towards sustainability, packaging companies and brand owners will be more transparent with consumers and communities at large in stating their recyclability, source reduction and other ESG goals and achievements. By revolutionizing customer experience and simultaneously protecting the environment, manufacturers and brands will not only win the trust of consumers but also contribute to the sustainable growth of the global economy.

"Packaging is the future and printers should look for niche solutions" — Ranesh Bajaj of Vinsak

Manash Das: How has 2022 been for the packaging industry?

Ranesh Bajaj: Vinsak has successfully negotiated the tough period of the Covid. While capital good sales were impacted to some extent, 2021 has seen a recovery in demand with 2022 showing signs of a full recovery. The pandemic has also ensured that we learn to work in the Hybrid mode which in many cases it's much more efficient.

We are lucky to have been in the packaging business where the impact was not so severe. Also, the groups geographically diverse operations across global markets and time zones have helped to even out the curve. Middle east and African markets have contributed greatly to keeping the balance sheets healthy. Service issues with new technology have really improved and up-times are higher than ever before.



Ranesh Bajaj, managing director of Vinsak

The future is to merge the Physical and the Digital. Hence the term Phygital was coined. More and more solutions are on leveraging digital solutions backed up by good physical properties to create a holistic packaging solution.

Manash Das: What about challenges?

Ranesh Bajaj: Commercial print is surely now seeing an earlier end to its existence. Whatever can be digitized will be digitized and this is a normal that we have to live with. Labels and packaging will continue to grow exponentially and all those who need to continue to be in the printing business will surely need to retool their kits.

Manash Das: What can the industry expect in 2023?

Ranesh Bajaj: Packaging is the future and printers should surely look for niche solutions that they can create for packaging. ■

