

Many changes have been made in response to the pandemic

by Heike Fischer

PETplanet Insider talked with Paolo Nava, CEO of SMI S.p.A. about the past Covid year, current developments in the beverage and packaging industry and SMI's future investment plans.



PETplanet: How did SMI manage the past year during the pandemic?

Paolo Nava: Covid-19 has affected life of everybody. During 2020 and still now, the way we work, shop, eat, seek medical advice, socialise, participate in sport, and entertain ourselves will all be different. SMI has been obliged to reorganise the way of working, especially for sales meeting and after sale services. During this period we learnt that we must be ready for every new eventuality. Over the past year hundreds of millions of people have lived through lock-downs. The future looks uncertain. We don't know when, or if, our societies might return to normal. Since the beginning of the pandemic, the SMI Group has always been strictly compliant with all official measures and safety precautions taken by national and local authorities to contain and contrast the spread of the virus and to safeguard all employees. Despite the health emergency, considering that most of our customers operates in the food & beverage sector, we never stopped giving them a technical support despite a lot of restrictions and limits imposed by the new pandemic. In fact, the SMI Group, as a manufacturer of bottling and packaging machines for food & beverage, household cleaning, personal hygiene, chemical and

pharmaceutical products, belongs to the list of business activities that the Italian government authorised to go on working since it provided essential services and goods during the emergency.

PETplanet: Italy was severely affected from the beginning and had to undergo several strict lock-downs. To what extent has the lock-down affected your infrastructure? Were you able to continue providing a response to demands from your customers worldwide?

Paolo Nava: The area of Bergamo, where SMI is based, was among the most affected in the world by the pandemic.

During that period there were a lot of difficulties in travelling to job sites, both SMI's and our clients' worldwide. Therefore we powered our staff of remotely-provided technical support, in order to satisfy our customer's needs in terms of machine troubleshooting, overhauls, start ups and any other kind of needs. Both our production and office departments were always operative throughout lock-downs and restrictions, taking all safety measures and precautions set for by the national and local authorities. The SMI Group has defined significant measures aimed at fighting the virus and protecting the health of employees and contractors, such as: rearrangement of production layouts, sanitisation of the premises, purchases of personal protective equipment, temperature measurement, circulation of hygiene rules and social distancing and remote working. That's why in that dramatic moment we wanted to give our own contribution to support, as far as possible, the improvement of the health situation in our country.

Our organisation showed great empathy to the territory and to all those who were working hard to face

this emergency; through a donation of €120,000 our company SMI-Pack helped the municipality of San Giovanni Bianco to increase health measures aimed at reducing the spread of Covid-19, while a donation of €200,000 by our company SMILab supported the well renowned Mario Negri Institute of Bergamo in the research activities aimed at defeating the virus.

PETplanet: The word digitalisation is always mentioned in this context. Of course, this key term is not new in the plastics processing industry, but it is said that digitalisation has been strengthened by the pandemic. What developments do you welcome, that you already consider urgently necessary and where do you see no added value?

Paolo Nava: In this period, characterised by restrictions to the freedom of movement in order to contain the spread of the Covid-19 virus, remote communication and digitalisation have become an even more important factor to maintain good relationships with customers and provide thousands of companies all over the world with quick and efficient technical assistance. We missed a lot, and still do, interpersonal interaction with our customers and partners, but at least geographical distance can be easily overcome with a series of communication tools based on telephone, email, videoconferencing and augmented reality. It's true, in the plastic industry this digital technology isn't new and at SMI, with more than 30 years of experience and know-how relating to the advanced automation of machines and equipment, we have developed increasingly innovative and efficient hardware and software control solutions.

That's why, well before pandemic, all of SMI products were equipped with IoT-embedded applications, able



SMI's Ecobloc system

to meet several needs in terms of competitiveness, efficiency, flexibility and ease of use for thousands of customers all over the world. IoT technology allows the operating data, for all of the equipment in a production facility, to be collected and clustered in a single management and control platform; thus provides a real-time continuous monitoring of industrial plant efficiency and the ability to intervene remotely on every decentralised system point, in the event of anomalies or problems. This makes it possible to get information in real time both from an aggregate point of view (production volume, mean production time, consumptions, inventories and stocks) and from each single machine. If there were any doubts about the necessity of digital transformation to business longevity, the coronavirus has silenced them. In a contactless world, the vast majority of interactions with customers and employees must take place virtually. With rare exception, operating digitally is the only way to stay in business through mandated shutdowns and restricted activity. This digital mandate isn't new; it's simply been brought into sharp focus. Just before the pandemic for example, SMI developed the new service of Augmented Reality smart glasses to make customer assistance smarter and easier. Through this system customers receive audiovisual support and it is possible not only to troubleshoot, but also to carry out installation and start-up of machines. Today, thanks to augmented reality technology, SMI customers can benefit from immediate technical support in real time, even if they are thousands of kilometres apart. This remote support service, inspired by the most recent innovations in IoT and Industry 4.0, uses augmented reality technology to create a "virtual presence" communication system. Thanks to this system, SMI technicians can provide increasingly effective, timely and high-quality remote support to the customer's operator, guiding him during repairs and maintenance by sharing useful and practical information. By wearing special glasses, called Augmented Reality Glasses, the machine operator can

remotely send real-time images of the problem he is facing to an SMI expert at the Help Desk, in order to receive direct and immediate instructions on how to resolve the critical situation. This solution allows the reduction of both the length of the intervention and the related costs, as it does not require the physical presence of an SMI expert at the customer's company and considerably reduces the "downtime" of machines and systems.

PETplanet: Due to postponed or cancelled trade fairs and congresses many companies offer digital events directly from their production sites to stay present and in conversation. Are you planning such events?

Paolo Nava: Nowadays we have been forced to change our habits, our behaviour, our consumption patterns and above of all we have been obliged to minimise social contacts. This has also led to the cancellation or postponement of exhibitions, events that have always been an occasion to create or consolidate social relations and to show innovations.

Despite the physical distance we have had to keep, we have never stopped being by our customers' side: AR smart glasses and online help desk services are just an example; however we've tried to go beyond online assistance and for this reason we have decided to create a "Virtual Expo", a digital space dedicated to the interaction between us and our current and future customers. In this virtual space visitors can find our new developments and machine advantages through brochures, videos and pictures. Furthermore, visitors can ask for information through an online form and get in touch with our staff. Virtual tours aren't new to SMI, since we already proposed it some years ago when we invited our customers to take a tour inside a complete water-bottling line. Using this technology we allowed visitors to step into the production sites of a SMI customer and take a close look at a whole bottling and packaging line without being on the spot physically. The virtual visitor could freely move within a range of 360° inside the facility and get detailed information over each

single machine. We then realised that customers appreciated virtual events, as they save time and money - but, of course, they can't replace face-to-face meetings.

PETplanet: Due to the vaccination campaigns worldwide, the situation seems to be easing, although there are still exceptions, of course. What is SMI's concept for restoring full capacity?

Paolo Nava: Coronavirus has completely changed life and, while many hope those changes are temporary, the pandemic has unearthed weaknesses in the status quo. After every major crisis, humanity is forced to identify those weaknesses and evolve accordingly. I think that everybody agrees in the fact that Covid-19 will change life for a very long time.

Vaccination campaigns worldwide will help solve the situation, but in 2021 we will continue to see changes as a result of the pandemic and this will involve technology, digitalisation, online and virtual services.

Covid-19 forced companies, governments and social systems to change swiftly around the globe. Even prior to the pandemic, technology had become an increasingly important part of the workforce. Businesses were looking at technology as a helpful means of engaging with customers, allowing some workplace flexibility, and for a way to introduce automation and faster processes. However, the spread of the new coronavirus and the shutdown of in-person meetings for non-essential businesses accelerated these adoptions immensely. It forced companies to look into creative digital solutions, so that organisations could continue to function remotely and to serve their client base.

Many changes have been made in response to the pandemic; anyway many of them are here to stay. Only when in-person meetings and work was limited in response to Covid-19, everybody quickly realised how powerful technology can be. The pandemic helped accelerate the digital transformation and created a landscape that will continue to encourage innovation and technological adoption moving forward.

PETplanet: Where do you see potential in the packaging market and what are the strengths of SMI that you would like to develop further?

Paolo Nava: There will be more than 300 billion extra pieces on the shelves of large supermarket chains by 2024. This is what emerges from the predictive analysis carried out by Mecs-Centro Studi Ucima on the growth prospects of packaging machinery.

The market survey highlights that the most dynamic sectors will be those related to the production of soft drinks, dairy and confectionery and, as regards the packaging, those related to recyclable plastics.

The research is a confirmation of the fact that the great worldwide debate concerning sustainability of packaging solutions has become a key factor in the growth strategies of food and beverage manufacturers.

Environmental sustainability and innovation go hand in hand. Environmental protection is a primary objective, that can be achieved only through the joint action of companies and consumers. Companies are increasingly introducing technical innovations in order to produce in an environmentally friendly manner, while consumers are adopting lifestyles and behaviours capable of preserving the environment and enabling the collection and recycling of empty packaging.

SMI has been at the forefront in the design of innovative and flexible packaging systems to handle packaging processes efficiently and in an environmentally friendly manner. For instance, shrink tunnels of shrink wrappers have been re-designed in a "green" key by implementing several technical innovations that allow to save on electricity and improve the quality of the packs produced. SMI stretch-blow moulders, indeed, are designed to ensure high energy efficiency and the machines of the latest generation make use of cutting-edge technology, such as the Air Master double stage air recovery system; this latter technology enables to reduce HP compressed air consumption up to 40% compared to those systems that are not equipped with it.

PETplanet: What future challenges do you see especially in the PET industry?

Paolo Nava: Future is always full of challenges, especially for extremely competitive market segments like that of food & beverage. Companies, influenced by the trend of increasing product diversification, need flexible and efficient bottling and packaging

plants in order to reach high levels of optimisation and competitiveness of their production lines.

Furthermore, in an economic environment that is increasingly oriented towards eco-friendly solutions in the use of plastic packaging, a growing number of companies have chosen to use 100% rPET preforms, that allow to produce bottles with a high mechanical and aesthetic quality in a context with low environmental impact.

Recent studies clearly show the advantages related to the use of PET plastic bottles, since those containers are unbreakable, safe, with great barrier properties, light and above all recyclable. When compared to other packaging materials, like glass or aluminium, traditional PET and, above all, its 100% recycled version (rPET), has a good environmental profile; in fact, thanks to its lightweight, in those bottles there's less material to be produced, less material to be disposed of, less energy used to manufacture it and less fuel used for the transport of packed products. Thus, thanks to its recyclability and to its great weight/capacity ratio, many producers choose this packaging material as the ideal solution in terms of environmental sustainability. Bottling and packaging solutions offered by SMI include a wide range of stretch-blow moulders from the EBS Ergon range that allow to produce rPET or PET containers; EBS machines can be supplied both as single unit or as part of integrated blowing-filling-capping mono-blocs of the Ecobloc Ergon range, complemented by different types of secondary and tertiary packaging machines capable of meeting just about any requirement in terms of pack format and production output.

PETplanet: Where do you see SMI in the next 10 years?

Paolo Nava: Further to the global pandemic and the associated travel restrictions, investments in machinery and equipment are temporarily in stand-by, waiting for a better economic scenario. However, there is a high level of interest in new technologies for efficient, hygienic and flexible beverage bottling and packaging plants like those supplied by SMI: hi-tech solutions inspired to Industry 4.0 and Internet of Things (IoT) concepts, which deliver more efficient, flexible, environment-friendly, ergonomic, easy to use and control systems. Although

sustainability remains a top priority for packaging suppliers, experts also highlight the variables affecting the future of beverage packaging materials. The Covid-19 pandemic has demonstrated the value of plastics in general and plastic packaging in particular as the change in consumer behaviour toward more home-based activities and different beverages like teas, juices, soft drinks and water have all gained market share. Many of these products are packaged in PET.

When it comes to the plastic containers markets, experts highlight how the industry is taking major steps to support the demand for sustainable solutions. Hundreds of millions of dollars are being invested in recycling and sustainability. Given the importance of packaging to the consumer experience, there is tremendous focus on choosing the right materials that will fulfil the sustainability needs while meeting the practical and economic demands of commerce. PET packaging has delivered sustainability, value and consumer appeal for over 40 years and continues to be the material of choice for many brands and retailers. Its lightweight, clarity, break-and-tamper resistance and recyclability are all features that improve the consumer experience and help achieve a sustainable cycle.

The future of plastic bottles in the beverage industry will move towards rPET and, therefore, most of operators are going to bet on this material. At the base of present and future developments stands the overall concept of the circular economy. The use of rPET for the production of new bottles is the core of this concept, since it allows to collect used material and process it so that it can be reused or recycled multiple times, avoiding waste and reducing the environmental impact, provided that efficient recycling and waste systems exist. Investing in a new bottling line for 100% recycled plastic containers (rPET) is the new frontier of sustainable growth and SMI investments in R&D will continue focusing on innovation, sustainability and flexibility to all new standards in the plastics industry like tethered cap solutions that comply with the EU directive, forbidding the use of single-use plastics.

PETplanet: Thank you very much!

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