

TECH4FOOD

MAGAZINE

DESIGN • KNOW HOW • INNOVATION • VISION

Managing director: Angelo Frigerio

Edizioni Turbo Srl - Corso della Resistenza, 23 - 20821 - Meda (MB) - Tel. +39 0362 600463/4/5/9 - Fax. +39 0362 600616 - Periodico bimestrale - Registrazione al Tribunale di Milano n. 2 del 4 gennaio 2018 - Stampa: Italgrafica - Novara - Poste Italiane Spa - Sped. in Abbonamento Postale DL 353/2003 (conv. in L. 27.02.2004, n.46) art. 1, comma 1, LO/MI - In caso di mancato recapito inviare al CMP di Milano Roserio per la restituzione al mittente previo pagamento resi.

market outlook

Plastic wanted desperately



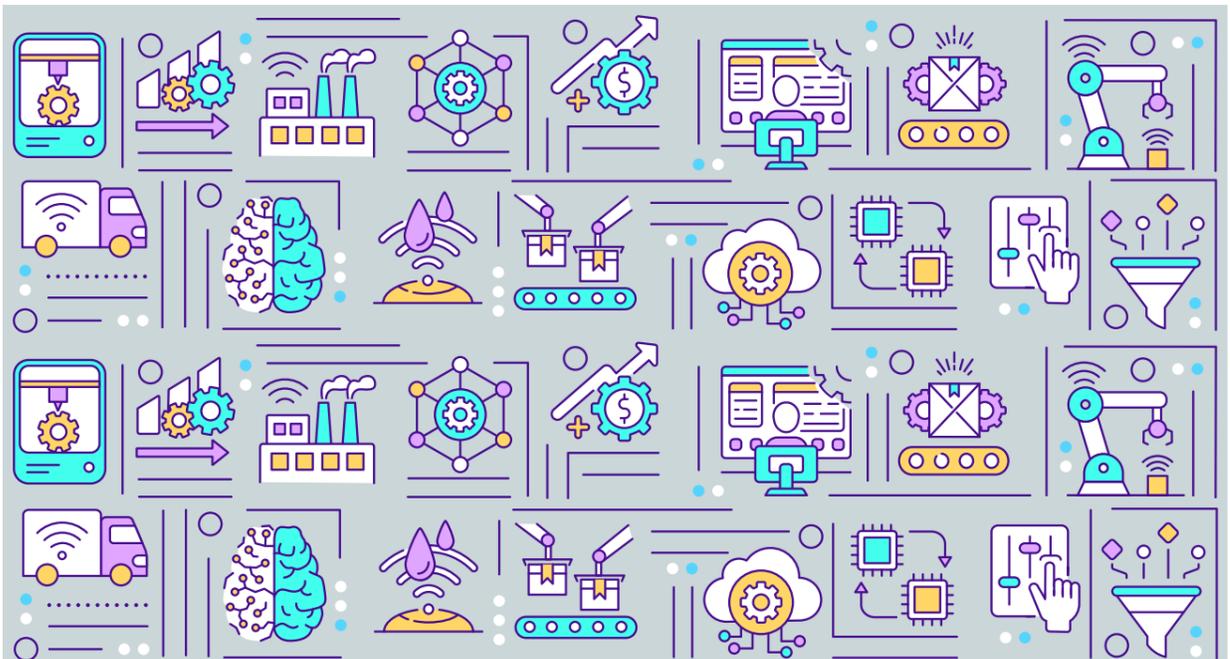
Demand grows, but there is no raw material. And the prices of polymers reach historic highs on international markets. The speculative bubble hits the transformation companies. Which now ask for help from the institutions, the food industry, and the large-scale distribution.

from page 10 to 12

focus on
Industry 4.0 entering new challenges

from page 24 to 27

product showcase



Packaging keeps going

from page 17 to 23

Global insight: Asia

Major trends and business opportunities in three strategic and fast developing markets: China, Indonesia and India.

from page 32 to 39



the company

Italian 'kings' of thermoforming

From small manufacturer to leading supplier of packaging systems around the world. Coligroup closed 2020 with sales achieving triple-digit growth. And providing customers with increasingly performing and sustainable solutions.

on pages 8 and 9

the research

Spot the fraud!

It is now possible to assess the authenticity of animal rennet through the analysis of chymosin. The Italian study published on the Food Chemistry journal.

on pages 14 and 15

food tech

What to expect from 2021?

Consumption habits are evolving. And the food & beverage sector is deeply involved. New trends are emerging, and technology plays for them an important role. The top 10 in a report by Forward Foding.

on page 13





Move it or lose it

By Federica Bartesaghi

In 2020, the food processing and packaging sector has been hardly impacted by the pandemic. In Italy, just like in the rest of the world, packaged food - a guarantee of safety and long shelf life - has experienced significant growth, also thanks to the excellent sales performance of supermarkets and hypermarkets, the only sales channels that remained open even in the worst moments of the health emergency. A greater demand for processed and packaged foods was accompanied by an equally high demand for machines, production lines and packaging materials from the food manufacturing industry. A demand that, however, is now facing the 'side effects' of the pandemic.

The slowdown in global trade, also due to container shortages, is just one of the factors that is undermining most European supply and production chains. First of all, that of plastics (see article on page 10). A series of factors, including the increase in the oil price, longer time and higher expense for custom clearance and the increased demand from China, whose industrial machine in now running at full speed - catalyzing the demand for

raw materials by the world's major suppliers - has caused a major disruption in the global supply of many commodities.

Yet, the need to seize every business opportunity has never been more compelling. And the competition has never been so fierce. Besides the major global suppliers of food technologies - see Germany, the US and Italy - we are now witnessing the birth of new competitors operating in markets showing the highest development rates. Asia, just to name one. With the 'Made in China 2025' strategy, the People's Republic is pushing the accelerator to limit its dependence on imports (see article on page 32). The same applies to India, which has the potential to become the world's largest food processor. Here, the government is heavily investing to industrialize a poorly structured and inefficient supply chain. The launch of the first Italy-India Mega Food Park, on April 16th, represents the first step in a project that can prove to be strategic for Italian food-tech companies (see article on page 36).

Once again, we can't just sit around and wait for something to happen. Move it or lose it.



Managing director:
ANGELO FRIGERIO
Edited by: Edizioni Turbo Srl
Corso della Resistenza, 23
20821 - Meda (MB)
Tel. +39 0362 600463/4/5/9
Fax. +39 0362 600616
e-mail: info@tespi.net
Periodico bimestrale - Registrazione al Tribunale di Milano n. 2 del 4 gennaio 2018
Edizioni Turbo Srl n° iscrizione ROC11158 del 21 aprile 2005
Numero 3/4 - aprile 2021 -
Stampa: Italgrafica - Novara -
Poste Italiane Spa -
Sped. in Abbonamento Postale DL 353/2003 (conv. in L. 27.02.2004, n.46) art. 1, comma 1, LO/MI -
In caso di mancato recapito, inviare all'ufficio postale di Roserio per la restituzione al mittente che si impegna a pagare la relativa tariffa.
Una copia 1,00 euro -
Abbonamento annuo 20,00 euro
L'editore garantisce la massima riservatezza dei dati personali in suo possesso. Tali dati saranno utilizzati per la gestione degli abbonamenti e per l'invio di informazioni commerciali. In base all'Art. 13 della Legge n° 196/2003, i dati potranno essere rettificati o cancellati in qualsiasi momento scrivendo a: Edizioni Turbo S.r.l. Edizioni Turbo S.r.l.
Responsabile dati: Angelo Frigerio
Corso della Resistenza, 23
20821 Meda (MB)
Questo numero è stato chiuso in redazione il 26 aprile 2021

Chi si ferma è perduto

Il settore delle tecnologie per la trasformazione e il confezionamento alimentare ha retto con discreta solidità l'urto della pandemia nel 2020. In Italia come nel resto del mondo, l'alimentare confezionato - garanzia di sicurezza e lunga conservazione - ha segnato importanti tassi di crescita, complice anche l'ottima performance di vendita di supermercati e ipermercati, le sole attività a restare aperte nei frangenti più difficili dell'emergenza sanitaria. A una maggiore richiesta di alimenti processati e confezionati è corrisposta, da parte dell'industria manifatturiera, un'altrettanta elevata richiesta di macchine, linee produttive e materiali di confezionamento. Domanda che, tuttavia, si è scontrata negli ultimi mesi con i pesanti effetti 'collaterali' della pandemia.

Il rallentamento del commer-

cio mondiale, anche a causa dell'invio di un minor numero di container, è solo uno dei fattori che sta mettendo in crisi le principali filiere produttive europee. Prima fra tutte, quella della plastica (vedi articolo a pag. 10). Una serie di fattori, tra cui l'aumento del costo del petrolio, le difficoltà nelle fasi di sdoganamento e la ripartenza della macchina industriale cinese - che ha catalizzato la richiesta di materie prime da parte dei maggiori fornitori mondiali - ha mandato in tilt le catene di fornitura globali delle principali materie prime.

Eppure, la necessità di cogliere ogni opportunità commerciale non è mai stata così impellente. E la concorrenza mai così agguerrita. Ai grandi fornitori mondiali di tecnologie, in primis tedeschi, americani e italiani, si stanno affiancando oggi tanti nuovi player

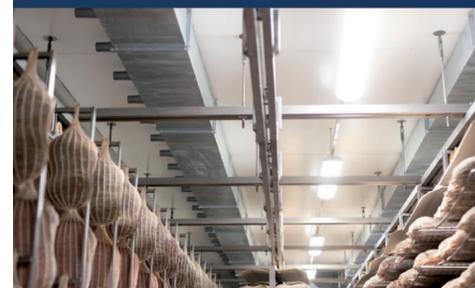
che operano nei mercati a più alto tasso di sviluppo. L'Asia è uno di questi. Con la 'Made in China 2025' strategy la Repubblica popolare sta spingendo sull'acceleratore per limitare la sua dipendenza dalle importazioni (vedi articolo a pag. 32). Lo stesso vale per l'India, che ha il potenziale per diventare il più grande produttore di alimenti processati al mondo. Qui, il governo sta investendo pesantemente per industrializzare una filiera ancora caratterizzata da gravi inefficienze. E l'inaugurazione di un Mega Food Park italo-indiano, lo scorso 16 aprile, rappresenta il primo passo di una collaborazione che può rivelarsi strategica per le aziende italiane del meccano-alimentare (vedi articolo a pag. 36).

Ancora una volta, non resta che rimboccarsi le maniche e partire. Chi si ferma è perduto.

FRIGOMECCANICA

We stand by your side offering technical expertise, customer oriented solutions, assistance!

- FERMENTING, DRYING AND SMOKING ROOMS FOR SALAMI AND PROSCIUTTO
- CLEAN ROOMS
- THAWING SYSTEMS
- DATA ACQUISITION SW AND SW ENGINEERING FOR PLC AND MICROPROCESSORS
- AIR CONDITIONING SYSTEMS
- PROCESSING ROOMS
- OVENS FOR MORTADELLA SAUSAGE AND COOKED MEAT PRODUCTS
- COOLING TUNNELS



FRIGOMECCANICA S.p.A. • Via Provinciale 19 • 43038 SALA BAGANZA (PR) Italy • Tel. +39 0521 835666 • Fax +39 0521 834070

info@frigomeccanica.it • www.frigomeccanica.it



Frigomeccanica S.p.A.



Frigomeccanica S.p.A.

INDUSTRIAL DESIGN: NEW BOARD FOR THE ADI ASSOCIATION (VENETO AND TRENTO ALTO ADIGE)

ADI

DELEGAZIONE
VENETO
E TRENTO
ALTO ADIGE

The territorial Delegation ADI (Association of industrial design) for Veneto and Trentino Alto Adige has a new president: Marcello Cutino, elected by the members of the delegation on February 12, 2021. Paolo Perbellini, owner of Fishform, a well-known design studio of Verona, and Carlo Trevisani, will work with him as vice presidents. The program of the new board is based on three key words - Rebuild, Reconnect, Relaunch - and focuses on the institutional enhancement of ADI and its delegations,

also through the new tools that the opening of the ADI Design Museum will make available. For more information: www.adi-design-vtaa.org

Disegno industriale: rinnovato il direttivo di ADI Veneto e Trentino Alto Adige

La Delegazione territoriale ADI (Associazione del disegno industriale) Veneto e Trentino Alto Adige ha un nuovo presidente: è Marcello Cutino, eletto dai soci della delegazione il 12 febbraio 2021. Con lui lavoreranno come vicepresidenti Paolo Perbellini, titolare di Fishform, noto studio di design di Verona, e Carlo Trevisani. Il programma del nuovo direttivo è fondato su tre parole chiave - Rifondarsi, Riconnettersi, Rilanciarsi - e punta sulla valorizzazione istituzionale dell'ADI e delle delegazioni, anche attraverso i nuovi strumenti che l'apertura dell'ADI Design Museum metterà a disposizione. Per maggiori informazioni: www.adi-design-vtaa.org

CEPI PRESENTS THE 'BISCUIT SANDWICH REWORK SYSTEM'. AND ADDS THE 'HEAT TREATMENT OF OUTDOOR SILOS' TO ITS PORTFOLIO

As sustainability becomes a key factor in manufacturers' decision-making, CEPI launches a brand new rework solution. "Our new Biscuit Sandwich Rework system recovers production scraps and doses directly into the mixer, with reduced material consumptions and waste," the company explains. "The system breaks the scraps and creates an emulsion with a liquid part that can be dosed directly on the mixer. The process is fully automated and sees no loss of food properties." CEPI's rework range of solutions already includes a system for dry rework of biscuit scrap which re-uses the powders on the production line, as well as a rework system for bread and similar products such as toasts, loaves and sandwiches. The final product of the bread rework system can be fed back into production in place of flour, and can be sold or used for animal feed, or worked again to produce croutons or breadcrumbs. "We are also glad to announce we are now providing our customers with Heat treatment of outdoor silos," the company adds. "Heat treatment ensures sanitation and total disinfection against pests of flour and micro-organisms such as bacteria and fungi. The treatment has zero environmental impact and doesn't require downtime after application as it doesn't generate residuals."

Cepi presenta gli 'impianti per il recupero dei biscotti sandwich'. E introduce il 'trattamento termico per la sanificazione dei silos esterni' al suo portfolio. In un momento in cui la sostenibilità rappresenta sempre più un fattore chiave nel processo decisionale, Cepi presenta un'innovativa soluzione di recupero. "Il nostro nuovo impianto per la rilavorazione dei biscotti sandwich recupera gli scarti di produzione e dosa direttamente su mixer, riducendo i consumi dei materiali e rendendo il vostro processo più sostenibile", spiega l'azienda. "Gli scarti vengono frantumati e mescolati al liquido all'interno di un tank in acciaio inossidabile con agitatore, creando un'emulsione che può essere dosata direttamente sull'impastatrice per produrre nuovi biscotti". L'offerta di Cepi include anche gli impianti per il recupero a secco di biscotti, scarti di produzione del pane e prodotti simili, come toast e sandwich. Anch'essi completamente automatizzati, riutilizzano la polvere sulla linea di produzione. Il prodotto da dosare può essere inserito direttamente sulla linea di trasporto del cliente. Il prodotto finale può essere riutilizzato in produzione al posto della farina, venduto, impiegato in mangimistica, oppure ulteriormente lavorato per ottenere crostini o pan grattato. "Siamo anche fieri di aggiungere la sanificazione dei silos per esterni con trattamento termico al nostro portafoglio", aggiunge l'azienda. "Il trattamento al calore offre totale disinfezione da insetti e microrganismi a impatto ambientale zero. Un trattamento user-friendly, che non richiede tempi di inattività dopo l'applicazione poiché non ci saranno residui dal trattamento".

ROBOPAC MACHINERY OBTAINS THE CUSTOMER SATISFACTION AUDIT RECOGNITION BY CERVED

Excellent results emerged from the survey that Robopac received from Cerved_ON Marketing Services of Cerved Group, a company specialized in customer satisfaction activities, to assess the degree of satisfaction of its customers. Many selected dealers all over the world declared to be more than satisfied with the company's activities in all its aspects. "Robopac has chosen to question itself and listen to the points of view of its dealers in a context of global uncertainty," the company explains. According to the survey, the company's main strengths are its "leadership, integrity and the strong spirit of innovation," as well as the interpersonal factor: "Robopac's reliability, availability, human closeness, continuity of relationship and high professionalism are recognized worldwide." The attention on the products also obtained a very high opinion: "Innovation is identified in the quality, in the value of technologically optimized solutions, in the wide range of products and in the brand acknowledgement, which often are sign of great reliability." The survey has therefore "highlighted the positive image of a solid and strong customer-oriented company, allowing Robopac to receive the CSA (Customer Satisfaction Audit) award."

Robopac Machinery ottiene il Riconoscimento Customer Satisfaction Audit di Cerved

Ottimi i risultati emersi dall'indagine che Robopac ha affidato allo specialista della customer satisfaction Cerved_ON Marketing Services di Cerved Group, per valutare il grado di soddisfazione dei propri clienti nel mondo. La maggior parte dei quali si dichiara più che soddisfatta dell'attività dell'azienda, in tutti i suoi aspetti. "Robopac ha scelto di mettersi in discussione e di ascoltare il punto di vista dei suoi rivenditori in un contesto di globale incertezza", spiega l'azienda. Secondo l'indagine, i principali punti di forza sono stati identificati "nella leadership dell'azienda, nella sua solidità e nel forte spirito di innovazione", oltre che nei fattori relazionali: "A Robopac viene riconosciuta affidabilità, disponibilità, vicinanza umana, continuità di rapporto ed elevata professionalità". Anche l'attenzione sui prodotti ha ottenuto un giudizio molto elevato: "Qui l'aspetto innovativo si identifica nella qualità, nel valore di soluzioni tecnologicamente ottimizzate, nell'ampia gamma di prodotti e nella riconoscibilità del brand, sinonimo anche di grande affidabilità". L'indagine di Cerved_ON ha dunque delineato "un'azienda solida e fortemente customer oriented, consentendo a Robopac di ricevere per questo il riconoscimento CSA (Customer Satisfaction Audit)".

OPERAPRIMA LAUNCHES THE PIZZA STRETCHER THAT IMITATES HANDS

Ecor International presents OperaPrima, the first pizza stretcher that creates high quality Italian pizza in a simple and fast way, simulating the expert hands of a professional pizza maker. The product is equipped with a patented technology that stretches different types of dough without stressing it. In fact, thanks to the innovative cold working system, the pizza stretcher does not break the gluten shield and the dough maintains its internal alveolation. In this way, it is possible to obtain a high quality pizza with uniform cooking and a defined edge. The same result that is achieved by shaping the dough by hand, and which preserves all the attributes of the best artisan pizza. The ease of use makes the product suitable for any user, even inexperienced.

**OperaPrima, l'unica stendipizza che imita le mani**

Ecor International presenta OperaPrima, la prima stendipizza che crea in modo semplice e veloce la pizza italiana di qualità simulando perfettamente le mani esperte del pizzaiolo professionista. Il prodotto è infatti dotato di una tecnologia brevettata in grado di stendere diverse tipologie di impasto senza stressarlo. Grazie a un sistema innovativo di lavorazione a freddo, la stendipizza non rompe la maglia glutinica e l'impasto mantiene la sua alveolatura all'interno. In questo modo si ottiene una pizza di alta qualità, dalla cottura uniforme e con il bordo definito. Un risultato identico a quello che si raggiunge lavorando l'impasto a mano e che preserva tutte le peculiarità della migliore pizza artigianale. La semplicità di utilizzo rende il prodotto adatto a qualsiasi utilizzatore, anche inesperto.

FIORENTINI: A NEW TECHNOLOGICAL AND LOW IMPACT PLANT

The new state-of-the-art plant of Fiorentini Alimentari, specialized in the production of bread substitutes and snacks, is fully operational. The 21 production lines are active in the new headquarters in the outskirts of Turin, for an investment of over 50 million euros. The company's goal is to further increase the production capacity, achieve further efficiency within the processes and make the company even more competitive. For a greater sustainability, the lighting of the departments uses Led technology, with an intelligent system which optimizes consumption by dosing the light according to the rhythms of the production. The structure is entirely insulated by a thermal coat that generates efficiency with heat and cold, with insulating panels covered in galvanized and pre-painted steel sheet that cover a volume of about 70,000 sqm of surface. Inside the plant, laser-guided shuttles move the raw materials to the production lines, where cutting-edge technologies, x-ray inspection systems, optical selectors and state-of-the-art machinery work. The compressed air used to operate the machinery is produced by a system of two 75 kWh compressors. These machines are equipped with an Energy Recovery System, which is a system meant to recover the hot air generated during the production of compressed air. The heat is not dispersed into the atmosphere, but recovered and used to heat the thermo-sanitary water of the entire plant. The finished products are stored in a cutting-edge automated warehouse, which houses 13,000 pallet spaces on 3,000 sqm of surface. The six stacker-cranes in the warehouse are equipped with an energy saving system 'Energy efficient storage and retrieval unit' thanks to which the moving parts of the machine are able to exchange energy one another, meaning that a moving axis is able to exploit the energy of another motor of an axis in the generative phase, resulting in energy savings of up to 20%.

Fiorentini: un nuovo stabilimento tecnologico e a basso impatto

Il nuovo avveniristico stabilimento di Fiorentini Alimentari, specializzata nella produzione di sostituti del pane e snack, è pienamente operativo. Le 21 linee di produzione sono attive nella nuova sede, alle porte di Torino, con un investimento di oltre 50 milioni di euro. Obiettivo: aumentare ulteriormente la capacità produttiva, efficientare i processi e rendere l'azienda ancora più competitiva. In ottica di maggiore sostenibilità, l'illuminazione dei reparti sfrutta la tecnologia Led, con un sistema intelligente che ottimizza i consumi dosando la luce secondo i ritmi della produzione. La struttura è interamente coibentata con pannelli isolanti rivestiti in lamiera di acciaio zincato e pre-verniciato che ricoprono una superficie di circa 70mila mq. All'interno dello stabilimento, navette laser-guidate si occupano del trasporto delle materie prime alle linee di produzione, dove lavorano tecnologie d'avanguardia, sistemi di ispezione a raggi x, selettori ottici e macchinari unici. L'aria compressa utilizzata per il loro funzionamento è prodotta da un sistema di due compressori da 75 Kwh. Queste macchine sono dotate di un Energy Recovery System, ovvero un sistema per il recupero dell'aria calda generata durante la produzione di aria compressa. Il calore non viene così disperso in atmosfera ma recuperato e sfruttato per riscaldare l'acqua termo-sanitaria dell'intero stabilimento. I prodotti finiti sono stoccati in un magazzino automatico che ospita 13mila posti pallet su 3mila mq di superficie. I sei traslochi elevatori di cui è dotato sono equipaggiati con un sistema di risparmio energetico 'Energy efficient storage and retrieval unit' grazie al quale le parti della macchina in movimento riescono a scambiarsi energia, ovvero un asse in movimento riesce a sfruttare l'energia di un altro motore di un asse in fase generativa, comportando un risparmio energetico fino al 20%.

NATURAL INGREDIENTS: AMBIENTA COMPLETES THE ACQUISITION OF TASTECONNECTION

Ambienta, Europe's largest sustainability-focused private equity investor, announced the acquisition of TasteConnection, a leading UK manufacturer of tailored and customised flavouring solutions in seasonings, provenanced ingredients blends, flavours, and culinary products. The acquisition of TasteConnection solidifies the position of Nactarome Group as a leading European mid-market player in the natural colours, flavours and ingredients sector. With the support of Ambienta, Nactarome has grown its revenues in excess of 120 million euros, spread its manufacturing footprint to 12 specialised plants in Italy, the UK, France and Belgium, and built a diversified customer base of over 4,200 clients served across more than 100 countries. Nactarome represents a unique, strategic asset with a complete product offering across natural flavours, colours and ingredients addressing an array of end-markets and applications. TasteConnection further strengthens Nactarome's brand and competitive positioning in the UK market, and marks Nactarome's entry into the natural seasoning product category as well as the growing British and international snacks market.

**Ingredienti naturali: Ambienta finalizza l'acquisizione di TasteConnection**

Ambienta Sgr, il più grande fondo europeo di private equity focalizzato sulla sostenibilità, annuncia l'acquisizione di TasteConnection, tra i maggiori produttori inglesi di soluzioni aromatiche innovative per il settore alimentare. Con questa acquisizione - la quarta del fondo in due anni e mezzo - la capogruppo Nactarome Group consolida ulteriormente la propria leadership del mid-market europeo nel settore dei colori, aromi e ingredienti naturali. Grazie al supporto di Ambienta, Nactarome ha quadruplicato i propri ricavi (oltre 120 milioni di euro), ampliato la presenza produttiva con 12 stabilimenti in Italia, Regno Unito, Francia e Belgio e sviluppato una base di oltre 4.200 clienti in più di 100 Paesi. TasteConnection rafforzerà ulteriormente il brand di Nactarome e il suo posizionamento competitivo sul mercato inglese, segnando anche il suo debutto nella categoria degli snack.

www.risco.it

RS 110
RS 112
RS 114:
the Risco Trio

The active vacuum filler series for small and medium-scale companies.

Risco introduces the RS 100 vacuum filler series dedicated to dynamic meat processors who frequently switch among outstanding-quality sausages, salami, burgers, ready meals, snacks and more.

We invite you to visit www.risco.it to discover the complete RS 100 range.

Main features:

- Gentle filling of the product with the Risco Long Life system
- Vane filling system with large volume
- Simple and intuitive display
- Minimum maintenance costs
- Hopper size 70 - 165 - 260 l

Partner in your success

Risco SpA
36016 Thiene (VI) Italy | Via della Statistica, 2 | Tel. +39 0445 385.911 | Fax +39 0445 385.900 | risco@risco.it

ILPRA PRESENTS SPEEDY DUO, NEW PACKAGING MACHINE BELONGING TO THE FOODPACK TRAY SEALER LINE



Despite the actual global pandemic Ilpra, one of the largest Italian food packaging companies, keeps innovating and designing more and more performing packaging solutions. Hence, the company presents Speedy Duo, a new model of packaging machine belonging to the Foodpack tray sealer line which is perfect to pack a wide range of products: dairy, meat, fruit and vegetables, ready meals and more. A completely automatic machine that works with two independent sealing units managed by a touch screen panel. This allows to eliminate the mould change while saving time for production. "Like the other Ilpra models," the company explains, "the Speedy Duo is highly customizable and can be easily integrated with any processing line. Optionally, with some types of trays, it is possible to install a system of automatic size recognition and automatic guide positioning." The Progas technology (patent mark) will reduce the gas consumption up to 50% when compared to traditional solutions, while remote maintenance allows to drastically reduce the intervention time and consequently also the maintenance costs. "This machine is Industry 4.0 ready and it is engineered and realized within our plants in Italy," the company adds, "in order to get a complete made in Italy solution."

Ilpra presenta Speedy Duo, nuova confezionatrice della linea tray sealer Foodpack

Novità in casa Ilpra, specialista italiano del confezionamento alimentare che, nonostante la complessità di questo momento storico, continua a innovare e sviluppare soluzioni di confezionamento sempre più performanti. L'azienda presenta infatti Speedy Duo, nuovo modello della linea tray sealer Foodpack studiata per lavorare in differenti campi di applicazione: dai prodotti carni a quelli lattiero caseari, ma anche frutta e verdura e piatti pronti. La macchina, completamente automatica, è configurata con due unità di saldatura indipendenti controllate da pannello touch screen. Modalità che permette di eliminare il cambio stampo e guadagnare tempo utile per la produzione. "Come gli altri modelli Ilpra", spiega l'azienda, "anche Speedy Duo consente forti personalizzazioni e massima integrabilità con linee di processo. Opzionalmente, con alcuni tipi di contenitori, si può installare un sistema di riconoscimento automatico dei formati e di posizionamento automatico delle guide". La tecnologia Progas (marchio registrato) diminuisce i consumi fino al 50% rispetto alle soluzioni tradizionali, mentre la teleassistenza consente di ridurre i tempi di intervento e i costi di manutenzione. "Il modello è progettato con predisposizione per Industry 4.0 ed è interamente realizzato negli stabilimenti italiani del gruppo", sottolinea ancora l'azienda, "rafforzando così un brand totalmente made in Italy".

BEVERAGE CARTON INDUSTRY: SUSTAINABILITY GOAL SET FOR 2030

The European Association of beverage carton manufacturers (Ace) announced the creation of a 10-year roadmap aimed at achieving greater environmental sustainability. By providing packaging that is "renewable, recyclable and with a lower climate impact for the food system," reads a note. Together with its members - Sig Combibloc, BillerudKorsnäs, Elopak, Stora Enso and Tetra Pak - challenging goals have been set, including achieving 90% separate collection of beverage cartons with a recycling rate of 70% by 2030 and the decarbonization of the production and distribution chain in line with the 1.5 °C reduction target set by the Science Based Targets initiative. "The industry has set high and ambitious standards for the next ten years," says Annick Carpentier, director-general of Ace. "We look forward to fostering a dialogue with EU decision-makers to ensure that the necessary regulatory conditions are in place to support the industry's journey towards beverage cartons as the sustainable packaging choice for today and tomorrow."

Industria del cartone per bevande: obiettivo sostenibilità entro il 2030

L'associazione europea dei produttori di imballaggi in cartone per bevande (Ace) rende nota la creazione di una roadmap decennale volta al raggiungimento di una maggiore sostenibilità ambientale. Fornendo packaging "rinnovabile, riciclabile e a minor impatto climatico per il sistema alimentare", si legge in una nota. Insieme ai suoi membri - Sig Combibloc, BillerudKorsnäs, Elopak, Stora Enso e Tetra Pak - sono infatti stati fissati degli obiettivi chiari, tra cui il raggiungimento del 90% di raccolta differenziata dei cartoni per bevande con un tasso di riciclo del 70% entro il 2030 e la decarbonizzazione della catena di produzione e distribuzione in linea con l'obiettivo di riduzione di 1,5°C fissato dalla Science Based Targets initiative. "Il settore ha fissato standard elevati e ambiziosi per i prossimi 10 anni", commenta Annick Carpentier, direttore generale di Ace. "Non vediamo l'ora di promuovere un dialogo con i decisori dell'Ue per assicurare le condizioni normative necessarie per sostenere l'ambizione di considerare i cartoni per bevande come scelta di imballaggio sostenibile, oggi e per domani".



FOOD&BEVERAGE TECHNOLOGIES: DRINKTEC AND IBA POSTPONED TO 2022 AND 2023

Drinktec and Iba, the two international food & beverage technology trade shows that should have taken place at the Munich Fair next October, will not take place in 2021. The two events, the undisputed reference point, respectively, for processing and packaging technologies in the beverage sector (Drinktec) and for the bakery and confectionery industry (Iba), have indeed been postponed. Drinktec will be held from 12 to 16 September 2022, while Iba from 22 to 26 October 2023. A decision, the organizers explain, taken due to the current uncertain global scenario, which does not allow for any prediction on the success of events with a strongly international appeal.

Tecnologie per il f&b:

Drinktec e Iba rimandate al 2022 e al 2023

Non avranno luogo nel 2021 Drinktec e Iba, i due saloni internazionali delle tecnologie per il food&beverage che avrebbero dovuto svolgersi alla Fiera di Monaco il prossimo ottobre. Le due manifestazioni, punto di riferimento indiscusso, rispettivamente, per le tecnologie di processing e packaging in ambito beverage (Drinktec) e per l'industria dei prodotti da forno e dolciari (Iba), hanno infatti annunciato le nuove date: Drinktec si terrà così dal 12 al 16 settembre 2022, mentre Iba slitta direttamente al 2023, dal 22 al 26 ottobre. Una decisione, spiegano gli organizzatori, presa a causa del clima di incertezza attuale. Che non permette di fare previsioni sul successo di eventi dal carattere fortemente internazionale.

GLASS AND METAL PACKAGING: BERLIN PACKAGING ACQUIRES THE ITALIAN GLASS LINE

The US packaging corporate Berlin Packaging has announced the acquisition of Glass Line, an Italian manufacturer of glass and metal packaging solutions for the food & beverage markets, headquartered in Savona (Liguria). "Glass Line is an extraordinary company that not only shares Berlin's focus on quality and service, but also delights in serving its customers," Paolo Recrosio, Ceo of Berlin Packaging Europe said. "Our family has built Glass Line over many years, and we were very deliberate in selecting a partner to help us accelerate our business," adds Umberto Berruti, co-leader of Glass Line together with Patrizia Zoppi. This is the 13th European acquisition made by Berlin Packaging since 2016.

Packaging in vetro e metallo:

Berlin Packaging acquisisce l'italiana Glass Line

La multinazionale Usa Berlin Packaging, specializzata nella fornitura di contenitori e chiusure in vetro, plastica e metallo, rende nota l'acquisizione di Glass Line, fornitore italiano con sede a Savona che offre soluzioni di packaging in vetro e metallo, in particolare per i mercati alimentare e vinicolo. "Glass Line è un'azienda straordinaria che non solo condivide l'attenzione di Berlin alla qualità e ai servizi offerti, ma si impegna anche a fondo per soddisfare i propri clienti", sottolinea Paolo Recrosio, Ceo di Berlin Packaging Europe. "Grazie al continuo rafforzamento della nostra presenza nel nord-ovest dell'Italia, siamo in grado di rifornire meglio i clienti di tutte le dimensioni e in tutti i settori della regione". "La nostra famiglia si è occupata dello sviluppo di Glass Line per diversi anni e abbiamo scelto in modo consapevole un partner per aiutarci ad accrescere il nostro business", aggiunge Umberto Berruti, co-leader di Glass Line insieme a Patrizia Zoppi. Questa è la 13esima acquisizione conclusa in Europa da Berlin Packaging dal 2016.

BEVERAGE TECHNOLOGIES: SIMEI RESCHEDULED TO 2022

The 29th edition of Simei, the biennial event held by Unione Italiana Vini (UIV), world leader in technologies for winemaking and bottling, initially scheduled from 16 to 19 November 2021, has been postponed to next year, from 15 to 18 November. "Simei is a complex b2b event also on a logistical level and with a strong international propensity," said the UIV Secretary General, Paolo Castelletti. "Therefore, it is difficult to guarantee an adequate business response to the important investments required of the exhibitors and to the expectations of visitors several months in advance. In any case, we are studying opportunities for analysis and professional meetings on and off line over this coming year to maintain the strong bond with the sector." As explained by UIV, Italy is the world leader in the sector with a turnover of around 2.9 billion euros a year. Of this, 70% is destined for exports with an active trade balance of around 1.8 billion euros.

Tecnologie per il beverage:

Simei rimandata al 2022

La 29esima edizione di Simei, la manifestazione biennale di Unione italiana vini (Uiv) dedicata alle tecnologie per enologia e imbottigliamento, si terrà a Fiera Milano dal 15 al 18 novembre 2022. Inizialmente programmata dal 16 al 19 novembre 2021, è stata posticipata al prossimo anno in seguito al confronto con l'associazione di riferimento per il settore (Anformape) e con le imprese del comparto. "Simei è un evento b2b complesso anche sul piano logistico e a forte propensione internazionale", sottolinea il segretario generale Uiv, Paolo Castelletti. "Diventa perciò difficile garantire con diversi mesi di anticipo un'adeguata risposta di business agli importanti investimenti degli espositori e alle attese degli operatori. Stiamo comunque studiando occasioni di analisi e incontri professionali on e off line nel corso di quest'anno per mantenere forte il legame con il comparto". Come spiega Uiv, l'Italia è leader mondiale del settore con un fatturato annuo di circa 2,9 miliardi di euro, di cui il 70% destinato all'export per una bilancia commerciale attiva di circa 1,8 miliardi di euro.

GOGLIO, 30 MILLION LOAN FOR THE DEVELOPMENT IN ITALY AND ABROAD



Goglio, Lombardy-based flexible packaging company, received a 30 million euros loan from Intesa Sanpaolo and UniCredit, guaranteed by Sace, to support the business development plan, with a focus on new production technologies that allow greater efficiency and a lower environmental impact, as well as to increase the presence of the group on foreign markets. "At a time of strong discontinuity like the current one, determined by the health emergency that has developed worldwide," Davide Jarach, Goglio's strategic development manager explained, "we are convinced that we need to have the courage to keep investing, to be ready for the date with the recovery." Over half of the investments planned for the next four years will be made in Italy.

Goglio, 30 milioni per lo sviluppo in Italia e all'estero

Il produttore lombardo di imballaggi flessibili Goglio ottiene un finanziamento di 30 milioni di euro per sostenere il piano di sviluppo aziendale, attraverso investimenti in tecnologie efficienti e sostenibili. E per incrementare la presenza del gruppo sui mercati esteri. A erogarlo sono state, in parti uguali, Intesa Sanpaolo e UniCredit assistiti nell'operazione da Sace attraverso Garanzia Italia. "In un momento di forte discontinuità come l'attuale, determinato dall'emergenza sanitaria sviluppatasi a livello mondiale", spiega Davide Jarach, responsabile sviluppo strategico di Goglio, "siamo convinti che si debba avere il coraggio di continuare a investire, per presentarsi pronti all'appuntamento con la ripresa". Il gruppo continua a puntare molto sull'Italia, dove saranno realizzati oltre la metà degli investimenti previsti per il prossimo quadriennio".

Caseartecnica
Bartoli srl

MACHINES FOR CHEESE PROCESSING AND CUTTING



ROCK 18
PORTIONING MACHINE FOR COUNTERS



ROCK 20
SEMI-AUTOMATIC PORTIONING MACHINE



ROCK 23
AUTOMATIC MACHINE FOR FIXED AND VARIABLE WEIGHT CUTS AND HORIZONTAL CUTTING MACHINE



ROCK 13
HORIZONTAL "ROCK" CUTTING MACHINE



ROCK 20 PLUS
AUTOMATIC PORTIONING MACHINE TO CUT THE CHEESE WITH VARIABLE AND FIXED WEIGHT WORK PROGRAMS.

Italian 'kings' of thermoforming

From small manufacturer to leading supplier of packaging systems around the world. Coligroup closed 2020 with sales achieving triple-digit growth. And providing customers with increasingly performing and sustainable solutions.

by Federica Bartesaghi

With lines installed and operating in more than 50 countries, Coligroup's corporate mission, as a technology supplier, is to provide customers with tailored solutions able to meet all needs and requests, by offering professional advice and running packaging and material trials to allow for effective fine-tuning of the entire production process. In 2020, despite the effects of the pandemic, the company achieved an impressive result in both sales volumes (up by 220% in the first nine months) and Group revenue (up by 15%).

"Colimatic packaging lines represent today one of the highest expressions of technology, experience and quality made in Italy", the company Ceo, Vittorio Libretti, explains. "A wide range of cutting-edge solutions that are characterized by reliability, high performance and the reduction

of waste of precious food products in the process".

From Italy to the world

Born in the Brescia province (Lombardy) 50 years ago, the Colimatic brand was established as a small artisan company. With the passing of time, thanks to the vision of its founders, the business has grown exponentially and in just a few years, Colimatic passed from being a small company, focused on the domestic market, to a global supplier of packaging solutions. A dynamic approach that led to the manufacturing of packaging machinery on an industrial scale, while maintaining the customer centric design which sets them apart from competitors.

In 2010, following a generational shift in management, Coligroup Spa was created. "This

was in effect a passing of the baton of the founder, a managerial corporate reorganization and consolidation of the market shares and focus of the Colimatic brand", the Ceo explains. The pillar to Coligroup's sustained success is in the continuous commitment to research and development. "Now like in the past, the company's main goal is to create solutions capable of guaranteeing maximum efficiency and reliability", Vittorio Libretti adds. "This dedication to delivering systems that cater to the current and future needs of our clients has ensured Colimatic's position as the Italian leader of the thermoforming sector."

Designed to meet the needs of the global food industry

The food industry accounts for around 60% of Coligroup's turnover, while the remaining

is spread across the medical industry and technical products. The partnership with some of the most important brands in the packaging sector, both domestic and internationally, has led to the development and delivery of complete lines and the know-how to accept new challenges to satisfy the requests of the most creative customers. In addition, all Colimatic lines components are standard, in partnership with the most renowned companies with worldwide distribution (Festo, Busch, Siemens), allowing for better and easy spare parts management.

Thermoforming lines are the core of Coligroup's production, together with tray sealing solutions and combined vacuum and flow pack systems. Besides them, Colimatic offers complete slicing lines, packaging in Map and marking, lines for the pro-

duction of cooking products commonly called cook-in, vacuum packaging with the support of shrink technology, automation and skin packaging.

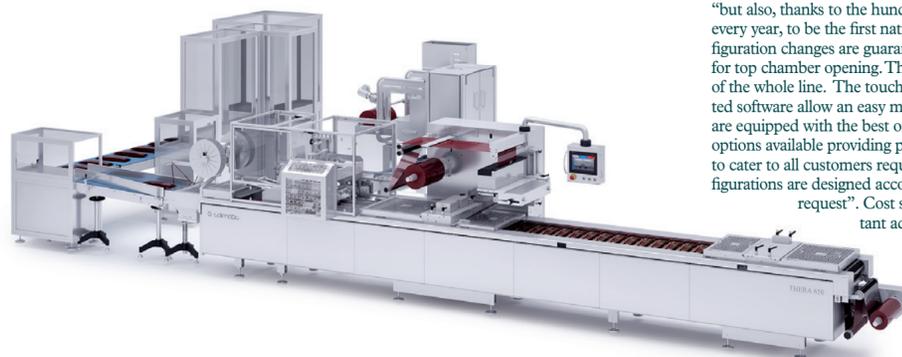
A 24/7 after sale service

7 days a week, 24 hours a day, Colimatic's after sale service is available for customers. Through LISA (a patented software for the integrated management of production in the Industry 4.0 environment) Colimatic can intervene remotely to minimize unexpected machine downtime. This is enabled through real-time control of spare parts, management of maintenance and continuous monitoring of the machines vital parts. Integration to the customers IT system for work orders acquisition and processing all the data and specifications that contribute to the quality of the final product. "Thanks to the LISA software package all process data can be stored and made available", the ceo explains. "The retrievable data includes information relating to performance (OEE) but also all the process parameters linked to the production batch for total traceability of the packs produced. Customer care guarantees the fulfillment of any request for spare parts within 24 hours."

Specialisti della termoformatura

Da piccola azienda artigianale a fornitore mondiale di soluzioni di confezionamento tailor-made, in grado di soddisfare ogni esigenza produttiva. Coligroup archivia il 2020 con volumi di vendita che crescono a tripla cifra. E con una gamma di prodotti performante e flessibile, sempre più orientata alla sostenibilità. Ne parliamo con l'amministratore delegato, Vittorio Libretti.

COLIGROUP'S TOP-OF-THE-RANGE: THE THERA THERMOFORMING LINES



The Thera thermoforming lines are the flagship products of the Colimatic brand. "Large continued investment in the development of this range has led Coligroup to not only to be most experienced Italian manufacturer of thermoforming solutions", Vittorio Libretti explains, "but also, thanks to the hundreds of customers who renew their trust every year, to be the first national producer." Quick and easy die configuration changes are guaranteed thanks to the assisted hinged system for top chamber opening. This system results in the improved efficiency of the whole line. The touch-screen HMI control panel and dedicated software allow an easy managing of all the parameters. "Clients are equipped with the best of Italian technology. With a wide range of options available providing pack size flexibility and various capacities to cater to all customers requirements. Forming moulds and die configurations are designed according to product features and customer request". Cost savings on packaging material is an important added benefit of Colimatic packaging lines.

Due to the flexibility of construction and thanks to the special vacuum system and Map technology, Thera thermoforming lines have only 10mm lateral scrap, only on the bottom film. This results in a massive savings in terms of film consumption.

WITH WEBSKIN, THE FOCUS IS SET ON SUSTAINABILITY

Colimatic believes that the quest for new environmentally sustainable technologies is one of the first goals that modern companies should have. For this reason, Coligroup developed Webskin, a new sustainable and recyclable packaging solution. "Webskin is Coligroup's answer to the need of creating a recyclable and ecological package, without compromising the cost of the product to the final consumer", according to the Ceo. The Webskin packaging process combines the efficiency and hygiene of the thermoforming process with the packaging design flexibility of tray sealing while optimising the usage of plastic material. Colimatic Webskin uses a very high-quality cardboard bottom with a plastic percentage of less than 10% and is therefore totally recyclable in the paper; the lid (top) is separable and can be recycled in the plastic circuit, reducing the impact on the environment. The tray is made from a reel, with printed and customizable graphics, thus eliminating the costs of manufacturing, storing and managing pre-cut cardboard blanks. This is combined with the increased aesthetic appeal and the improved product shelf-life of skin packaging. The manufacturer also has the ability to use the entire surface of the tray for graphics, marketing and cooking instructions.



EUROPRODOTTI:
cooking ingredients
that enrich flavours!

Sequici su
@in f y

www.europrodotti.it f in

EUROPRODOTTI
FOOD INGREDIENTS
THE TRUE TASTE OF ITALY

Cercasi plastica. Disperatamente

Cresce la domanda, ma manca la materia prima. E sui mercati internazionali i prezzi dei polimeri toccano i massimi storici. La bolla speculativa colpisce le imprese di trasformazione. Che ora lanciano un grido d'aiuto alle istituzioni. Ma anche all'industria alimentare e alla Grande distribuzione.



PLASTIC WANTED. DESPERATELY

Demand grows, but there is no raw material. And the prices of polymers reach historic highs on international markets. The speculative bubble hits the transformation companies. Which now ask for help from the institutions, the food industry, and the large-scale distribution.

by Federica Bartesaghi

The global plastic supply chain is in crisis. And the European one even more. Indeed, a generalized lack of raw materials, our dependence on imports, and the record prices reached by the main virgin polymers are in contrast with the boom of the demand related to the ongoing health emergency. This is a dramatic situation for the transformation companies. Which denounce a tangible risk: no longer being able, within a few months, to guarantee even the essential supplies. Such as in the case of the food and pharmaceutical industry.

"An incredible situation which involves us all," highlights Luca Iazzolino, president of Unionplast, the association representing the Italian plastics transformers, during a webinar dedicated to the topic. According to Iazzolino, the fragility of the European industry has never been so clear. "It is the result," he adds, "of a season characterized by a strong chemical and petrochemical deindustrialization." Indeed, the serious situation we are in results from a series of factors, both conjunctural and structural. Among the most relevant ones, there is the significant increase in the demand registered in the last trimester of 2020 and in the first months of 2021, due to the health emergency which has brought back the plastics to the top. But there is also the poor availability of polymers, caused by the high prices of oil (+30%

during the year to date) and of the raw materials, which has distorted the concept of free competition giving rise to a merciless speculation. In a matter of months, the main virgin polymers have suffered an increase in price included between 40% and 70%. Another factor adds to this scenario: the production paralysis (caused by the extreme weather conditions) of a dozen plants in the USA, which supply not only the domestic market but also the export ones. And just here the structural reasons arise.

Owing to the lack of production plants in Europe, today we are net importers of several plastic materials for which we pay a duty of 6% or higher. Moreover, the very huge costs of transport and clearance – further aggravated by the Coronavirus emergency – led the big global manufacturers to prefer to send the precious raw material towards more economically 'attractive' destinations, starting with China whose industrial machine has restarted again at full speed. Consequently, European imports have decreased a lot. "We are witnessing a wave of panic: more orders, for any price and condition, to have continued supply," explains the president of Unionplast. Also because, according to the analysts' predictions, it will take months for prices to return to normal levels. In the meantime, 80% of the Italian transformation companies have already had

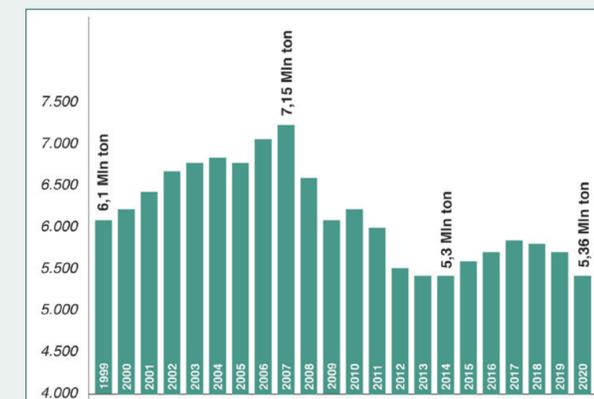
to reduce their production. "At the moment, our firms have two big problems," highlights Iazzolino. "The availability of the raw materials and the difficulty in passing the very strong price increases. With serious repercussions on their financial endurance."

The media campaign to demonize plastic, fomented by the environmentalist associations and supported by the institutions, adds to this scenario. The single-use plastics directive (Sup directive), the European plastic tax, the rises in Conai contributions, and naturally the national plastic tax: today the plastic sector is the favorite target for the Italian and community legislators. "The plastic companies are an asset for Italy. If they are not somehow protected, at the end of 2021 our economic and social structure will be devastated," highlights Cesare Casagrande, Ceo of Virosac, during the event. "Moreover, if these increases continue, a lot of companies will not be able to go on producing and supplying the shelves of the large-scale distribution." Renato Zeller, Ceo of Crocco and president of European Plastics Converters, the association representing the European transformers of plastic materials, takes the same view: "We must make clients understand that the price increases serve to try to limit damages, not to ride speculation. We are trying to save us, not to make money."

THE TRANSFORMATION OF PLASTIC MATERIALS IN ITALY - EVOLUTION, TREND 2020 AND OUTLOOK 2021

VIRGIN THERMOPLASTICS ITALIAN MARKET

Historical trend - Kton



Source: Plastic Consult

TOTAL CONSUMPTION OF POLYMERS

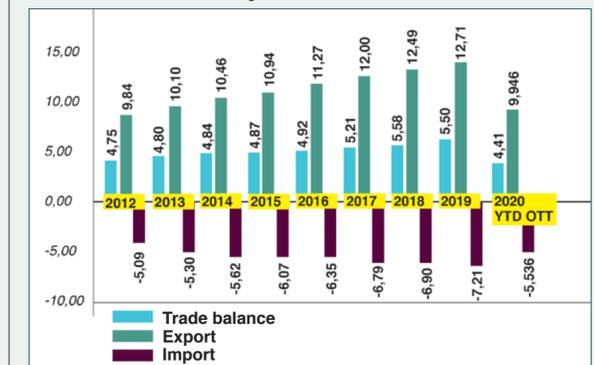
Quarterly trend 2019-2020 - % var. in volume



Source: Plastic Consult - "only post-consumption, range of selected applications"

THE NATIONAL INDUSTRY THE PLASTIC MATERIALS

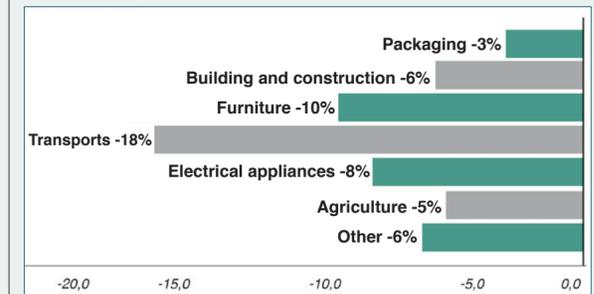
The trade balance with foreign countries - Values in billion euros



Source: Istat - Ateco 22.2 Production of plastic items. Partial data January-October, November in recovery with positive trade balance of 4.87 billion euros.

FIGURES 2020

The applications of the virgin thermoplastics / 2 Var. % 2020 VS 2019



Source: Plastic Consult

Brand Awareness
Innovation
Reliability
Technical Performance

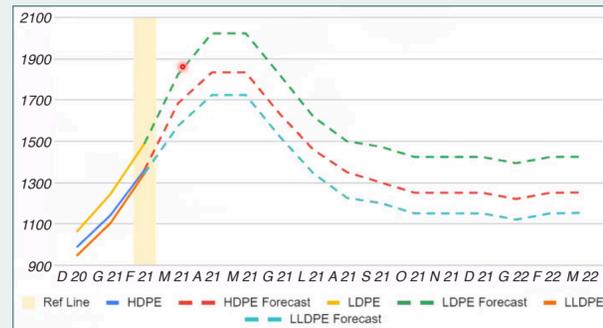
This is what we communicate through our projects. We deal with the form and design of industrial machinery, our aim is to represent quality and technical innovation.

fishform
industrial design engineering

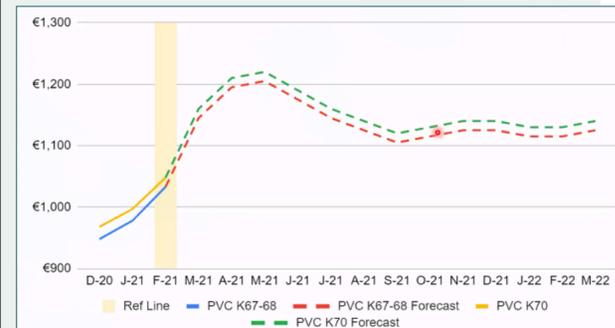
fishform.it

PRICE EVOLUTION IN EUROPE - FORECASTS

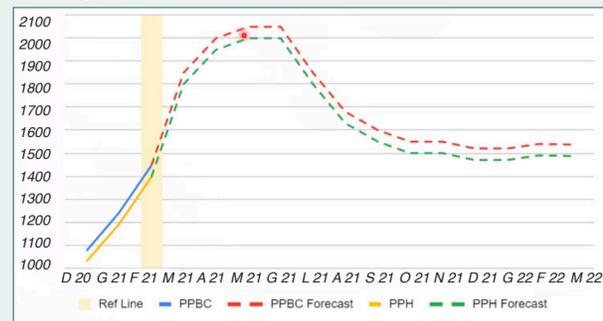
PE – Polyethylene



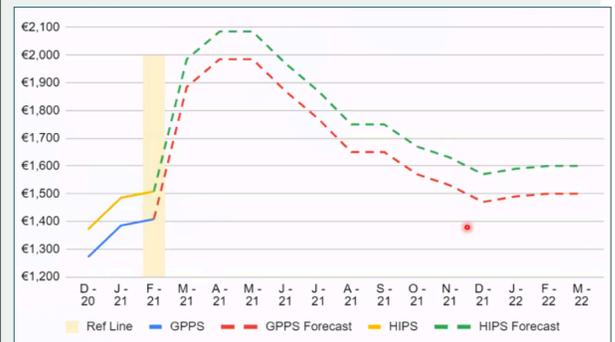
PVC



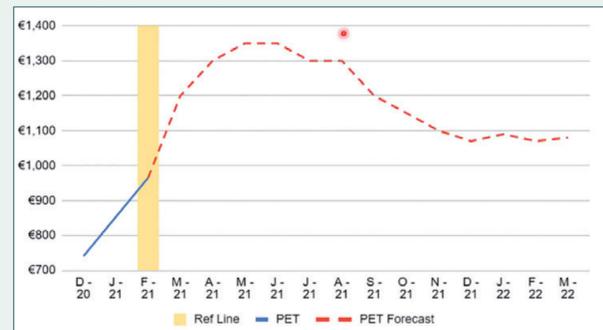
PP – Polypropylene



PS – Polystyrene



PET – Polyethylene Terephthalate



Source: Chem Orbis

SEALED AIR

Luca Marcoli, executive director global purchasing

“It is difficult to find in the past such an exacerbated shortage situation. Actually, in Europe, difficulties in transports, reduced due to the pandemic, and a high pressure by producers to increase the stocks and recover in margin have added to an already difficult start of the year because of some assets of the producers in FM. Furthermore, at the end of last month something unpredictable added: Texas entirely frozen. Considering that in that state there is 80% of the production of American polymers, the market has immediately become unbalanced at a global level. At the moment, the effect of the activities of storage in Singapore is dramatic. The fact that the USA and China have restarted to project increasing GDP contributes to this scenario. This makes the eastward export very advantageous, and, at the moment, the effect of the activities of storage in Singapore makes the problem of availability grow in Europe. We estimate that the peak will be reached in April. Then the situation will improve, with the recovery of the American production. But we expect that tensions will exist till the end of Q3.”

ROBOPLAST

Paolo Clot, sales manager

“After one year of stagnant market and poor demand, at a time when we observe a recovery of the demand for safe and sustainable packaging, it is dramatic that we do not have raw materials available. After the crisis of the sector due to a ‘plastic-free trend’, Covid rearranged some mainly emotional positions. The objective factor of protective function of the plastic packaging was back to have the right importance, in balance with the environmental factor, through an incentive to use recycled and recyclable materials. Conversely, this lack of polymers will tend to encourage again the search for alternative, less ecological materials, which have greater economic impacts but which are more available in the market. Once again, the European politics is not present and does not govern the circumstances. Therefore, we are witnessing a substantial victory of the market and of the economic power of China, which produces in the country and which by now absorbs most of its productions of raw materials. At least we hope that this situation will be a strong alarm signal which brings productions, purchases, and product commercialization back into the European internal market.”



focus on

Food tech: what to expect from 2021?

Consumption habits are evolving. And the food & beverage sector is deeply involved. New trends are emerging, and technology plays for them an important role. The top 10 in a report by Forward Fooding.

by Giorgia Nicolini

“Technology is today the most sought-after ingredient in our diet.” In this way, Forward Fooding, a collaborative platform for the food & beverage industry, explains the concept of food tech, leveraging the importance of technology. Not surprisingly, agrifood companies and startups from all over the world are increasingly investing in innovation projects, in order to “adapt to the changing times and provide for the needs of ever more demanding consumers with healthier and more sustainable food habits.” This is the developing scenario described by Forward Fooding, which presents the top 10 food & beverage trends that will be protagonists in 2021. Once again, food and tech industries complement one another.



PLANT-BASED FOODS (WITH MEAT AND DAIRY LEADING THE WAY).

In 2019, the global provider of financial services UBS estimated the plant-based-protein to reach 70 billion Euros in 2030, with a 28% year-on-year growth. In 2021, this rising trend will continue, resulting in a strong demand for alternatives to replace meat and dairy products. The range of options is very large. Peanuts, seaweed, and even wood are used as main ingredients. But also soy, oat, almond, split pea, hemp seeds, and barley. And giants such as Nestlé, Unilever, and Danone have successfully entered this flourishing space.

AIR AND CO2 PROTEIN.

Recently, there has been an enormous interest in air and Co2 protein in the food & beverage sector. This means using renewable energy and a probiotic process to create proteins. Solar Foods, Air Protein, and NovoNutrients are some of the players of this new futuristic trend.

PRECISION FERMENTATION.

This was a big trend in 2020, and it will continue to be in the spotlight in 2021 as well. It consists of producing animal proteins via microbes. Companies such as Planetarians, Better Dairy, Nature’s Fynd, and The Protein Brewery lead the way.

SEAWEED AND MICROALGAE.

Food made from or enriched with microalgae as a nutritious and vegan source of protein: this is what people are looking for this year. And many startups, such as NovaMeat, Tropic, and Algaia, are working in this direction, to make meat alternatives.

DARK KITCHENS SHINE BRIGHT.

Delivery is booming with the increased number of people staying at home owing to Covid-19. Indeed, the amount of orders more than doubled in the first nine months of 2020 compared to the year before. This has led to the proliferation of the so-called dark kitchens (or cloud kitchens), referring to places where to prepare food only for delivery, with no sitting capacity. This solution will be prominent not only in 2021, but also in the coming years.

FUNGI.

More and more startups are experimenting mushroom-based food, packaging, and clothing items. One of them is MushLabs, the fungi biotech company producing alternative protein from mushrooms.

NON-ALCOHOLIC DRINKS.

Demand for healthy substitutes for food and drinks is growing. And it has given birth to a whole new segment, the one related to non-alcoholic spirits, which has substantially grown across the EU in the last five years. Some brands are already operating in this category (such as the Australian company Lyre’s or Sedlip, acquired by Diageo), while some others are just entering the field.

PERSONALIZED NUTRITION AND TRACKING SOLUTIONS.

Personalized nutrition platforms and products are becoming more and more popular. Not surprisingly, consumer apps allowing users to track nutrition are multiplying. In 2021, many startups will gain traction, starting pinpointing exact customer needs and developing customized nutrition solutions.

LAB-GROWN MEAT.

Lab-grown meat is becoming a reality, with Singapore regulating it in December, and some restaurants already serving it. At the same time, companies and startups are collaborating to build a resilient supply chain and scale faster. Among them: Mosa Meat, Memphis Meats, Aleph Farms, Shiok Meats, and Higher Steaks.

D2C IS THE NEW BLACK.

The pandemic has forced people to buy online. This new shopping habit has led companies and brands to sell directly to consumers, without intermediaries. To do so, a robust e-commerce platform is pivotal for players, in the f&b sector as well. A direct-to-consumer channel brings significant benefits: a better control of profits by manufacturers, a more efficient response to fast-changing consumer needs, increased consumer loyalty, and a more personalized experience for consumers.



Food tech: le tendenze per il 2021

Le abitudini di consumo stanno cambiando. E il settore del food & beverage è in prima linea. Si profilano nuovi trend, per i quali la tecnologia riveste una notevole importanza. Se ne occupa Forward Fooding in un report sui top 10 nel 2021.



Key-words!

Animal rennet: milk clotting enzyme isolated from calf stomachs. The major component of rennet is chymosin but in commercial preparations of rennet other proteases, typically bovine pepsin, are found in varying concentrations. Rennet is the mode of coagulation in vast majority of the world cheeses.

Chymosin: gastric enzyme that is secreted in the abomasal mucosa of newborn and adolescent ruminants. The abomasum is the fourth and final stomach compartment in ruminants.

Source: Science Direct

Spot the fraud!

It is now possible to assess the authenticity of animal rennet through the analysis of chymosin. The Italian study published on the Food Chemistry journal.

by Elisa Tonussi

A new method to assess the authenticity of animal rennet has been discovered. In fact, the increasing demand for rennet, the needs of specific consumers, such as lactovegetarian, and the prospect of saving money have triggered the search for alternatives to animal rennet. Currently, the three available substitutes are microbial-derived coagulants, plant-derived coagulants and fermentation-produced chymosin. Yet, animal rennet, originating from the abomasal mucosa of new-born or adolescent ruminants, mainly calf and lamb vells, is mandatory for the production of PDO cheeses, such as Grana Padano and Parmigiano Reggiano. Therefore, it became necessary to develop analytical tools able to identify the origin of chymosin, a protease that curdles the milk casein. The Department of food quality and nutrition and with the Unit of computational biology of the Research and innovation centre of the Edmund March Foundation, in collaboration with Cagliificio Clerici, Sacco and Caglio Bellucci have carried out a research. And the findings were divulged on a paper titled 'Assessing the authenticity of animal



rennet using $\delta^{15}\text{N}$ analysis of chymosin', published on the journal *Food Chemistry*.

The study

Scientists observed that stable isotope ratio analysis of bioelements has good potential for its applications in the food industry, since it has already been used since the 90's to detect the authenticity of several food components, such as wine, vinegar, honey, juices and more recently cheeses. In the case of rennet, the most suitable isotope ratio to detect its

source is that of nitrogen ($\delta^{15}\text{N}/\delta^{14}\text{N}$, expressed as $\delta^{15}\text{N}$). So, in the study, 53 samples of authentic animal rennet and 9 samples of fermentation-produced chymosin were considered.

The samples were collected from 2013 to 2018, worldwide, including all the countries producing raw materials and considering five different production techniques, in order to cover the widest possible natural variability. The aim of the study was to develop a method to extract chymosin from animal rennet, analyse its

$\delta^{15}\text{N}$ and investigate whether the method can distinguish animal rennet from fermentation-produced chymosin and detect the source of chymosin used in PDO cheese production.

Scientists extracted chymosin from powdered animal rennet and produced it through a fermentation process. Afterwards, samples were analysed. In order to replicate the process of adulteration and assess the potential of $\delta^{15}\text{N}$ analysis for fraud detection, a simulation approach was applied. 10 thousand mixtures of animal rennet and fermentation chymosin were generated. One sample of animal rennet was subjected eight times to the entire analytical procedure, including extraction of chymosin, precipitation and analysis.

The $\delta^{15}\text{N}$ values of chymosin from animal rennet and fermentation produced chymosin were tested and analysed. On the one hand, results from samples of animal rennet were relatively homogeneous and ranged between + 5.7 ‰ and + 8.0 ‰, with a median equal to + 6.9 ‰. No difference was identified between liquid and powdered animal rennet and among samples collected

from different countries in the world. On the other hand, $\delta^{15}\text{N}$ values in fermentation produced chymosin were significantly lower and ranged between -5,3 ‰ and + 2,2 ‰.

Animal rennet vs fermentation chymosin

In the study the authenticity range of $\delta^{15}\text{N}$ values of animal chymosin (5.7‰ to 8‰) and fermentation-produced

chymosin (< 2.2‰) were determined for the first time.

According to the initial results, $\delta^{15}\text{N}$ chymosin is highly effective in distinguishing animal rennet from fermentation-produced chymosin. This parameter is also effective in determining the authenticity of rennet obtained by mixing animal with genetically modified chymosin.

Scopri la frode!

È stato pubblicato e registrato sulla rivista scientifica *Food Chemistry* un metodo scientifico per verificare l'autenticità del caglio animale. Lo studio, dal titolo 'Assessing the authenticity of animal rennet using $\delta^{15}\text{N}$ analysis of chymosin', Analisi del $\delta^{15}\text{N}$ della chimosina per verificare l'autenticità del caglio, è stato condotto in collaborazione con Cagliificio Clerici, Sacco e Caglio Bellucci. Infatti, oltre al caglio animale, sono ora disponibili sul mercato tre tipi di coagulanti che hanno la stessa funzione del caglio, ma un costo di produzione minore. Essi sono di origine microbica, vegetale e da fermentazione da parte di microrganismi geneticamente modificati. Il loro utilizzo, tuttavia, è vietato per la produzione di numerosi formaggi Dop. Si è dunque reso necessario studiare metodi analitici per identificare l'origine della chimosina. Gli studiosi hanno sviluppato un metodo per analizzare il rapporto isotopico dell'azoto (ovvero il rapporto $\delta^{15}\text{N}/\delta^{14}\text{N}$, espresso in $\delta^{15}\text{N}$) nella chimosina. E hanno osservato che, nel caglio animale, è possibile identificare un valore limite di $\delta^{15}\text{N}$ pari a +5,7 ‰. L'aggiunta di chimosina genetica al caglio animale, o la sua sostituzione completa, influisce sul $\delta^{15}\text{N}$ del caglio animale, in quanto ne abbassa significativamente il valore. Se il caglio animale presenta quindi un valore di $\delta^{15}\text{N}$ della chimosina estratta inferiore al limite di +5.7 ‰ significa che il campione è adulterato.



FERRARI sistemi
IM860

Automatic machine for vacuum packaging of cheese wedges



FERRARI SISTEMI S.R.L.
Via Giovan Battista Della Chiesa, 43036 Fidenza PR
Phone: 0524 520146 - Email: info@ferrarisistemi.it - Web: www.ferrarisistemi.it

The green side of tableware

Single-use paper packagings have a lower environmental impact than reusable items. And a study commissioned by the European Paper Packaging Association demonstrates that they also have less hygiene issues and risks of food contamination.

by Annalisa Pozzoli

Perhaps it is hard to believe, but single-use paper-based packaging seems to have a lower environmental impact than reusable tableware. This is the surprising result of a study by the Danish consultancy agency Ramboll, commissioned by the European Paper Packaging Association (EPPA).

The Ramboll Life Cycle Assessment (LCA), independently assessed by the German TÜV (Technischer Überwachungsverein), compared the environmental performance over the life cycle of glasses, cups, ice cream bowls and disposable paper cutlery and washable tableware, in the context of on-site consumption in fast-service restaurants over a year. The study indicates that for on-site consumption reusable tableware generates 177% more CO2 emissions, consumes 267% more freshwater, and produces 132% more fine particulates matters than single-use paper. Moreover, it increases fossil depletion by 238%, and terrestrial acidification by 72%.

The most significant environmental impact for reusables comes from the high consumption of water and energy during washing and drying, to ensure they are hygienic and safe for reuse by customers. This is also true when the most efficient washing technologies are applied. This means that single-use tableware is better for the climate and does not aggravate water stress problems, a growing issue in many European countries.

But the main problem is not only environmental; it is also related to hygiene issues and the risk of food contamination. At the beginning of 2020, EPPA asked David McDowell, emeritus professor of Food Studies at the Ulster University, to conduct a review of the food hygiene challenges of repla-



cing single use food service ware with reusable food service items. The study found that the transfer of foodborne disease remains a clear and present hazard to consumers, and that there are greater risks of cross contamination within 'circular' reuse systems, than in the current 'linear' single use systems. Because reuse systems are inherently more complex than single use systems due to multi-location cleaning, sanitation, storage and transport, they lead to greater risks of cross contamination. Professor McDowell noted that banning or reducing the use of food service disposables, in the absence of radical significant changes in good hygiene practice, will lead to greater persistence and circulation of foodborne pathogens within the human food chain, and increased risks of human foodborne illness in our community.

These studies come as the Europe-

an Commission is discussing new rules on packaging and packaging waste and defining guidelines on the use of single-use plastic products, which will need to be based on product lifecycle analysis. "100% of the disposable paper tableware used in Europe – the EPPA stressed in a statement – comes from sustainably managed forests, and paper and cardboard are the most recycled packaging material in Europe with a rate of about 86%".

This is a completely different situation than Single-Use Plastics (SUP): in 2019 an EU Directive introduced new restrictions on certain products, that are made entirely or partially of plastic material and are typically intended for single use before being thrown away. Now the risk is that the EU could introduce similar measures also for paper packages, plates, and glasses, that could be included among the products

considered harmful to the environment, and therefore not marketable. "But 90% of these products are made of fiber, paper, and contain marginal percentages of plastic", comments Antonio D'Amato, president of EPPA and former president of Confindustria. "For years we have been committed to developing sustainable, renewable and recyclable solutions and products. But in defining the guidelines there is a risk of penalizing an entire sector that has a turnover of millions of euros. Beyond the producers, we are talking about several companies that use disposable paper in a massive way. Fast food restaurants, hotels, motorway restaurants and so on are worth 300 billion euros in revenues in Europe, and employ 25 million people. It is an industry, it is worth remembering, mainly supplied by three large countries: Germany, France and Italy".

Il lato verde delle stoviglie

I piatti e i bicchieri di carta monouso hanno un impatto su clima e ambiente inferiore rispetto ai corrispettivi riutilizzabili. È quanto emerge da uno studio della società danese di consulenza Ramboll commissionato dall'Alleanza europea per gli imballaggi in carta (Eppa) guidata da Antonio D'Amato, già presidente di Confindustria. L'analisi, condotta sui prodotti utilizzati nei servizi di ristorazione veloce, ha preso in esame produzione, consumo e riciclo e ha evidenziato che per il consumo in loco nei servizi 'quick' (dai fast food ai bar sui treni) le stoviglie riutilizzabili generano il 177% in più di emissioni di CO2, consumano il 267% in più di acqua e producono il 132% in più di particolato fine rispetto al monouso in carta. L'impatto ambientale più significativo proviene dal consumo di acqua ed energia nelle fasi di lavaggio e asciugatura, anche nei casi in cui vengono applicate tecnologie di lavaggio più efficienti. Le stoviglie monouso in carta rappresentano quindi una scelta migliore, non solo a livello climatico, ma anche per la loro capacità di non pesare sullo stress idrico, un problema in crescita in molti paesi europei.



by Federica Bartesaghi

The last year has been challenging in many ways for the global packaging sector, and for the Italian one as well, which for the first time in many years has suffered a temporary setback. Deprived of all 'in-person' events - starting from the most important international trade show, Interpack, which due to the pandemic has been postponed to 2023 (4-10 May) - the foreign business of our manufacturers had to rely solely on remote work for plant control, testing, service and, of course, commercial negotiations. In addition to that, the pandemic has caused major disruption to world trade, and a sharp rise in the cost of almost all raw materials.

Yet, in spite of it all, at the end of the year the orders received by Italian packaging machinery

manufacturers showed an upswing, both in Italy and abroad, with an overall increase of 7.4% compared to the same period in 2019, as shown by the data provided by the Mecs-Ucima research department, based on a sample of monitored companies. International demand grew by 8.1% and domestic demand by 3.4%. Overall, however, cumulative orders fell by 1.7% in 2020 compared to 2019. The sector also saw an improvement in sales turnover in the last quarter, allowing it to remain in positive territory (+1.8%). This was a combined result of 4% growth in the export market and an 8.2% contraction in domestic Italian sales.

"This early part of the year has given us confidence and confirms that our sector remains

robust," said Ucima's Chairman, Matteo Gentili. "The Covid-19 emergency has not caught us unprepared and we are now reaping the benefits of the enormous research and development efforts that our companies have made over the years. This year we are already seeing signs of recovery, but we need to be cautious. We are aware of our competitors' strengths and of the uncertainty that the pandemic is continuing to cause in many markets. We are also seeing consequences in terms of higher raw material and sea freight costs, and this of course affects production and supply costs."

In the following pages, a preview of the latest technologies and machines launched by the Italian packaging manufacturers and of suppliers of labeling systems as well.

Il packaging non si ferma

Il 2020 è stato un anno impegnativo su molti fronti per il settore del packaging mondiale, così come per quello italiano. Ciononostante, a fine anno, gli ordini ricevuti dai costruttori italiani di macchine per il confezionamento hanno mostrato una crescita complessiva del 7,4% rispetto allo stesso periodo del 2019, come evidenziano i dati Mecs-Ucima. Nell'ultimo trimestre, il settore ha visto anche un miglioramento del fatturato (+1,8%). Merito di una crescita del 4% delle esportazioni, che hanno aiutato a compensare il -8,2% delle vendite sul mercato interno. Nelle prossime pagine, una preview delle ultime novità presentate dai big italiani del confezionamento nel segmento packaging primario ed etichette.



BMB

www.bmb-bmb.com

TSC70 – TSC175

Fields of application

Food packaging (meat, fish, cheese, bakery, bread, pizza, sweets, vegetables, ready meals, fresh pasta, cereals, legumes), pharmaceutical and cosmetics packaging.

Description and strong points

Fully automatic tray sealing machines. Stainless steel construction (Aisi 304), integrated Busch vacuum pump, interchangeable sealing die with 3 minutes changeover. Easy accessibility to all parts, easy maintenance, PLC with friendly HMI. Ethernet kit for remote control and support. Chambers movements

by pneumatic knee to reduce the stress of the cylinder. Vacuum control by high definition transducer.

Technical specifications

- TSC70 - 2 + 1 loading zones; TSC175 - 5 + 1 loading zones
- Inverter for speed management
- Internal Gas tank for fast gas injection
- Up to 15 cycles per minute
- Up to 3.600 trays per hour
- Sealing die size: 435 x 295 x H110 mm
- Power supply 400V – 3PH + N + PE
- Pneumatic supply 6-8 bar - dry and micro-filtered air
- No water cooling needed



COMEK

www.comek.it

Omnya Evo

Fields of application

Dairy, convenience food, fresh vegetables, frozen foods, snacks, confectionery.

Description and strong points

Vertical packaging machine with triple mode of operation: continuous, intermittent and doypack. Designed and created with a stainless steel Open Frame, without any outline or zones of deposit to ease the cleaning procedures. It also allows a high accessibility for maintenance, quick release without tools for format change, replacement of film belts and reel change. The horizontal sealing unit with box motion system combined with sealing bars with a special execution al-

lows high packaging performance even with difficult heat-sealable packaging materials. Widely used with recyclable and bio-compostable films. Possibility to realize many types of formats: pillow bag, gusset bag, block bottom, Stabilo, doypack with zipper.

Technical specifications

- Servomotor power supply system in DC voltage bus with energy saving
- Latest generation brushless servomotors with single-cable technology
- Multi-language 10" touch screen panel for network connection with IP technology
- Several sealing systems: hot bar, PE hot bar, ultrasonic.



COMIPAK ENGINEERING

www.comipak.com

A480PLM

Fields of application

Food sector

Description and strong points

The automatic clipping machine model A480PLM is used in the food sector and is suitable for closing bags containing bakery products and pasta. It applies the plastic 'clipband' with double metal core, where the expiry date can be printed. The machine is also available in the Twist version for closing the bag with the use of a 'twistband', plastic wire with central metal core. This model guarantees precision and high speeds; it can be installed in line with any type of vertical or flow-pack packaging machine, depending on the type of product.

Technical specifications

- Low consumptions thanks to the elimination of all pneumatic components and the use of high-performance brushless motors
- The PLC allows the speed variation, the visualization of the alarm history, the piece counter, and 50 customizable programs
- Possibility to view the daily and monthly production history of

the last year with data storage

- The machine can be set up for Industry 4.0: thanks to a remote connection via ethernet, the possibility of printing data and the communication with a specific management software.



THE TECHNOLOGY to IMPROVE your PRODUCTIVITY, EFFICIENCY, SALES, BUSINESS, ...



Tecno Pack
PACKAGING MACHINES

Via Lago di Albano, 76 · 36015 · Schio (Vicenza) Italy
+39 0445 575 661 · www.tecnopackspa.it · comm@tecnopackspa.it



FERRARI SISTEMI www.ferrarisistemi.it

IM860 Automatic machine for vacuum packaging

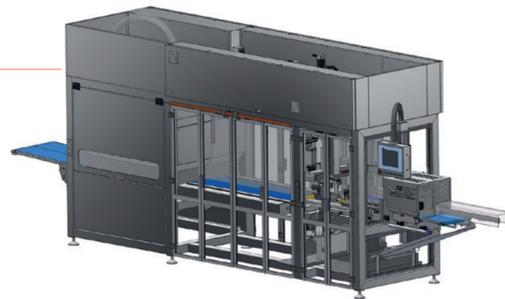
Fields of applications

Cheese wedges 200 gr - 1200 gr

Description and strong points

The machine receives the wedges and transfers them to the right or to the left conveyor belt of the packing machine (n.2 robots). The slices are collected and synchronized on a set of three conveyors belts. The bag is opened by suction with a positive action, a special device opens the bag and transfers the wedge inside. A hopper picks up the bagged slices and separates them from the adhesive strips that bind the bags together. It takes the next bag from its storage box and places it in the right position. The bagged wedges are placed on the introducing belt of the vacuum packaging-machine-module. The edges of the bag are smoothed on the sealing bars. The lid comes down, closes hermetically and the vacuum cycle begins.

The machine is equipped with: electronic Industrial PC Controller with Windows operating system with remote connection for maintenance; control unit with Industrial PC with TFT 10 "VGA color touch screen;



en; 80 different processing programs; easy maintenance and cleaning conveyors; protection devices and regulations in Stainless steel and polycarbonate

Technical specifications

- Aisi 304 stainless steel structure and electrical cabinet
- Sync photoelectric barriers on any conveyor
- Safety Control Unit Class 3
- Compressed air consumption: 1000 NI /min 6 bar
- Productivity: based on the size of the product. About 20 pcs/min for 2 robots, total 40 pcs/min.

GRUPPO FABBRI VIGNOLA www.gruppofabbri.com/en

Elixa 30^L Libra

Fields of application

Food packaging

Description and strong points

Elixa 30L Libra is the weighing, wrapping, pricing and labelling solution for packaging products, including family-size ones, with neutral or printed PVC-based, PE-based, biobased or compostable film in a single width (330 mm). It does not require compressed air and it meets all the latest requirements for label configuration, bar coding, weighing and integrated management of packaging data in the customer's system, with full and exclusive support from Fabbri Group. Simple and compact, Elixa 30L Libra is particularly recommended for in-store applications and for small to medium-sized industrial packaging centers.

Technical specifications

- Performance: Up to 30 ppm (wrap only)
- Direction: Left to right
- Operating mode: Wrap and label, Wrap only, Label only
- Label position: Top & Bottom
- Display: 15" TFT colour touch screen
- Interfaces: USB, Ethernet TCP/IP, RS 232, Parallel
- Power source: 230 V, 50/60 Hz
- Film width: 330 mm
- Core diameter: 111 mm, 76 mm
- Min. pack size: 120 x 100 x 10 mm (LxWxH)
- Max. pack size: 400 x 260 x 200* mm (LxWxH - all 3 max. tray sizes cannot be achieved simultaneously)



ICA www.icaspa.it

Label application

Fields of application

Food packaging

Description and strong points

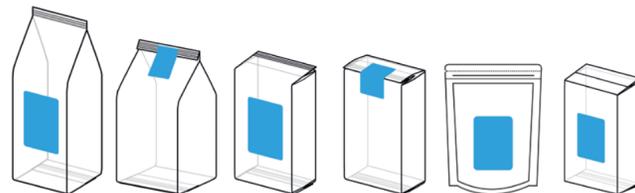
The application of a label on the front of a package is a very versatile solution from a convenient-aesthetic point of view. This packaging method enables manufacturers to use the same machine, with the same reel, to produce different product lines. With a small change over time the client can switch products or flavors or recipes very quickly, saving money. ICA's automatic packaging machines are designed to optimize the production output while minimizing client downtime. ICA proud itself on making good looking packages that catch the customers eye.

Technical specifications

Labels are available on all of ICA's machinery range including flat top bags, block top bags, standup pouches, under vacuum bricks and modified atmosphere bags. It also offers a reclosure label for a better

shelf life of the product after it has been opened.

The front label and reclose combination completes this versatile graphic package for a clients product with all of its variations.



IMA www.ima.it/confectionery

GIMA FTC series - Vertical dosing and filling machines for cartons and rigid containers

Fields of application

Confectionery (hard and soft candies, gums, coated sweets, cereals, sweeteners), supplements, nutraceuticals.

Description and strong points

The GIMA FTC series models integrate dosing, vertical filling and closing of cartons, tins and jars with circular, square or irregular base, to meet all market requirements. Clean and ergonomic design, full accessibility and compact footprint. Wide format range and extreme flexibility in closure styles. Easy and fast size changeover.

Technical specifications

- The IMA Gima FTC series includes different models that cover output speed up to 450 packs/min.
- According to the product to be handled, thanks to the modular design, these machines can be equipped with single or multiple dedicated feeding systems as counters, volumetric dosers and multihead weighers
- Additional feeding systems, printers and quality control units can be easily implemented



ITALIAN PACK www.italianpack.com

Polaris

Fields of application

Food packaging

Description and strong points

Polaris is the top-of-the-range automatic packaging machine able to satisfy all market requirements for the main packaging systems, a partial vacuum, protective atmosphere, vacuum gas and skin. The strength of Polaris is its versatility, as it can be made with a number of different accessories, such as denester of trays at the start of the line, automatic infeed conveyor, special conveyors on request of the customer, lid applier, dosing filling unit, markers and labelers.

Technical specifications

Polaris gets to packaging performance of 15 cycles per minute in a partial vacuum. In the double version the double chambers can increase its production speed. Polaris is equipped with the Industry 4.0 system, which allows Italian Pack's team to connect remotely and give real-time assistance to the customer.



ITASYSTEM www.itasystem.com

Lillosigillo

Field of application

Sausage and dairy products

Description and key point

Label attaching machine for traceability. It is applied on the product string. The machine automatically prints the product ingredients with batch number, date, nutritional information and barcodes. The client can independently manage his products. The system is compatible with 4.0 industry. The labelling machine is complete with thermal transfer printing, compatible with Windows software for managing texts, bar codes, nutritional information to be instal-

led on the customer computer.

Technical specifications

- File editor tablet
- Barcodes that can be handled: EAN8, EAN13, EAN128, CODE 39, CODE128, Codebar, Compressed, Datalogic, BCD, FEM, BAR, Indu, ITF, Matrix, NW7, UPC, JAN (EAN)
- File retrieval and the insertion of variable data are controlled via the tablet installed on the machine
- In stainless steel
- CE certification
- Electricity 230 V Compressed air 6 bar
- Lillosigillo welding: ultrasonic





M.C. AUTOMATIONS www.mcautomations.it

Wrapping machines and automatic feeders

Fields of application

Chocolate pralines, moulded and enrobed, wafer and nougat, fondant, fruit, marshmallow and jelly products coated with chocolate, chocolate bars and tablets.

Description and strong points

M.C. Automations' wrapping machines are innovative, simple, and versatile and offer the most attractive value for money. Perfect to be utilised as standalone wrappers or integrated in full automatic systems linked to the production. Compact to offer important floor space saving and flexible to rapidly change products and wrapping styles to allow customers to switch their production in real time.



NIEDERWIESER www.niederwiesergroup.com

NextFlex

Fields of application

Food packaging

Description and strengths

NextFlex, the recyclable line of thermoforming film and vacuum pouches, was achieved by combining the 11-layer coextrusion technology with the new formulation based on Mono Polyolefins (MPO) in polyethylene and polypropylene and a lower percentage of Evoh. Thanks to its Monopolyolefin structure and the high-performance raw materials used, it reduces the density by 6% compared to similar PA structures. NextFlex products have maximum flexibility, high barrier properties and, in general, reduced energy consumption in terms of welding and

forming temperatures.

Technical specifications

- NextFlex film structure: PP-EVOH-PE
- Available in: Recyclable thermoformable films for vacuum applications (Available thicknesses: from 60 to 270 µm); Recyclable film for converters (Available thicknesses: from 60 to 130 µm); Recyclable CombiNext smooth vacuum bags made from NextFlex film (Available thicknesses: 60, 80, 100 and 130 µm); Recyclable CombiNext Fresh vacuum bags and embossed rolls made from NextFlex film - perfect on external suction machines for domestic use
- Recyclability certifications: Institut Cyclos-HTP, Interseroh Certification (with the global rating of 19/20)



OMAG www.omag-pack.com

Packaging machines and complete packaging lines

Fields of application

Food, cosmetic and pharmaceutical

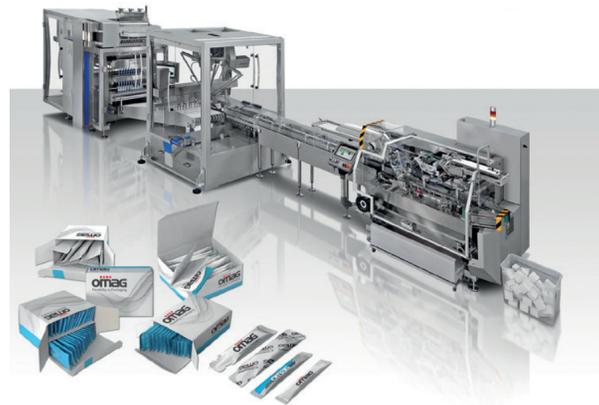
Description and strong points

Omag designs and develops packaging machines for powdery, granular, liquid and pasty products into 3 or 4-side sealed sachets, stick-pack and doypack. Every machine is customizable, can easily pack a wide range of products in different pouches dimensions and sizes, can be completed with robot counting and feeding systems, cartoning machines and customized with a large variety of optionals. Omag machines are up to date with Industry 4.0 new technologies: sensors, smart cameras, robotic systems and augmented reality. Omag uses a

series of software to comply with regulations in terms of traceability, safety, quality and interconnection with company information systems.

Technical specifications

- modular design: easy access to every component for cleaning, control and replacement procedures.
- +20% energy saving thanks to brushless motorization, temperature and anomalies detection sensors installed on the machines
- +65% of machine's components are internally produced to reduce handling and packing operations and promoting the use of recycled and recyclable supplies, towards zero waste production



RICCIARELLI www.ricciarellispa.it

Automatic packaging group mod. VSB150S (slim version)

Fields of application

Pasta and food (rice, dried fruit, dried legumes) industry

Description and strong points

High-speed packaging group to produce pillow bags, square bottom and double square bottom bags starting from a reel of flexible film. The machine's strong points are: flexibility, production of different types of pack (pillow bags, square bottom and double square bottom bags), considerable reduction of the overall dimensions, possibility of equipping devices and accessories for working with paper.

Technical specifications

- Mechanical speed: 90 double square bottom bags per minute / 120 pillow bags per minute
- Reel holder for foil width up to 580mm positioned at the head of the machine (at 90° in comparison to the standard rear solution) with return of the reel itself
- Operation cycle and driving axes controlled by Siemens Simotion
- Just one electrical panel positioned at the top and reduced mechanical structure



TECNOSISTEM www.tecnosistem.com

Heavy duty thermoforming machines for packaging under vacuum and modified atmosphere

Fields of application

Foodstuff (meat, cheese, fish, bakery)

Description and strong points

Tecnosistem Evolution is an ultimately-reliable thermoforming machine, which represents the implementation of the highest standards of design manufacturing, quality and certainty to get a rock solid construction product and high production performance. Tecnosistem's packaging lines are in compliance with the strict U.S.A. 3A Standards (Sanitary Standard Design) and USDA laws in force and TPM (Total Performance Management) Technology & Features, as a foolproof instrument to ease all the operations concerning machine maintenance and status for a constant control of the mechanical components also during the most intense production rounds.

Technical specifications

Food packaging is the core business for Tecnosistem: the company turned its research and development dedication into a major

expertise in different applications for food packaging trade such as meat (sliced, cured, whole, boned), dairy products (sliced, grated, shaved, wedges) baked products, fish, healthcare, sanitary items and many more, becoming a reference point in the world of packaging.



VERIPACK www.veripack.com

Thermoforming machine VKF70

Fields of application

Food

Description and strong points

Veripack's thermoforming machines have 30 years of know-how made of continuous evolutions, transformations and technological research. The use of stainless steel, the removable sides and the design, able to make the best use of the available space, allow effective and rapid cleaning and sanitization of the machines. The operator interface has

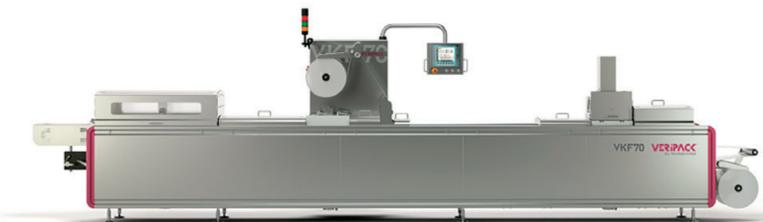
been structured with control panels that are easy to use. Each model is designed and built with technical specifications that allow to find the most suitable solution for each different application. Reliability and service complete the company's support to all customers.

Technical specifications

- The rapid change in forming and sealing allow to radically reduce the manual intervention and therefore time to change the

formats

- Video and remote assistance allow the company to monitor or modify the operating parameters of the system together with the user, to detect any malfunctions, saving both downtime and costs
- For the meat and cured meats sector: execution for 'cook-in ham'; execution in 'positive form' to obtain shaped blister; execution for sliced cured meats and for the packaging of anatomical cuts of fresh meat



Industry 4.0 entering new challenges

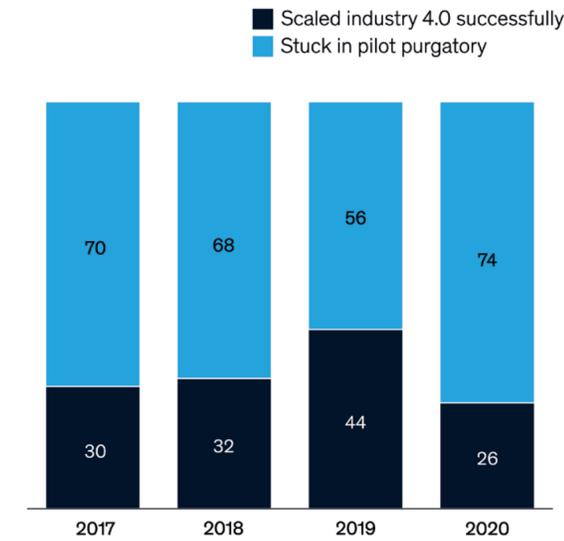
A survey by McKinsey shows how pre-pandemic investments in technology are widening the gap between winners and losers in the manufacturing sector. But there is still one chance to keep up: staying focused on digital transformation.

by Annalisa Pozzoli



Fewer respondents in 2020 claim to have successfully reached scale with Industry 4.0

Respondents saying they successfully scaled Industry 4.0, %



assessment of their organization's maturity. The number saying they had successfully scaled some or many Industry 4.0 use cases was down by more than 40 percent, to below the level recorded by McKinsey in 2017.

There can be two reasons for this renewed awareness. First, the bar for what 'successful scaling' means has risen. Industry 4.0 technologies are no longer being measured for their ability to add value during normal times; instead, they are also expected to prove valuable during trying times such as the Covid-19 crisis. Second, battle-testing their Industry 4.0 platforms during the crisis may have shown companies that they have still a long road before their implementations are truly fully scaled. In particular, many companies are finding that they can no longer ignore the limitations created by weaknesses in their underlying information technology/operational technology (IT/OT) infrastructure.

The price of inexperience

Companies that had not implemented Industry 4.0 prior to Covid-19 paid the price of the absence of past experience, and Covid-19-driven cash constraints are making it difficult for them to catch up. Many respondents believe that progress has become more difficult. Companies that have paused Industry 4.0 projects since the onset of the pandemic cite a range of challenges, including access difficulties due to lockdowns and the introduction of remote working, cash constraints, and teams being diverted to other urgent issues. With the exception of China, where more than one-third of respondents say their operations have already fully recovered from the impact of the pandemic, almost one-third of the participants in the survey expect recovery to take a year or more. Lack of funding is considered the biggest constraint, up from third place last year, while lack of people, skills, and knowledge drops from the top spot to the third.

Priorities are changing

The crisis is forcing companies to rethink their operational strategies, changing both the business issues they want to address, and the Industry 4.0 techno

When you mention Industry 4.0, you're talking about an evolution of the traditional manufacturing and industrial practices. A real Fourth Industrial Revolution, which uses modern smart technology, and is based upon large-scale machine-to-machine communication, Internet of things and smart machines that can analyse and diagnose issues without the need for human intervention. The result is an increased automation, better working conditions for people, and better plant productivity.

For many companies, technologies played a decisive role while responding to the pandemic. The economic crisis is putting the future of digital operations under new pressures. In 2020, industrial digitization faced its biggest test to date. Confronted with the largest health and economic crisis in recent history, companies across all sectors were forced into extraordinary measures to protect their people and maintain operations.

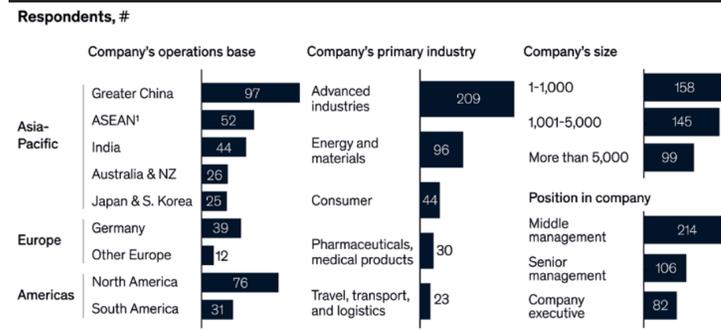
A survey by McKinsey, 'An inflection point for Industry 4.0', analyses the impact of the pandemic on companies. And it suggests three outcomes: a win for companies that had already scaled digital technologies, a reality check for those that were still scaling, and a wake-up call for those that hadn't started on their Industry 4.0 journeys.

McKinsey has been tracking the progress of Industry 4.0 since 2017. The latest edition of this analysis, on over 400 companies, provides a snapshot of leaders' perspectives six months into the coronavirus pandemic. Overall, 94 percent of respondents said that Industry 4.0 had helped them to keep their operations running during the crisis, and 56 percent said these technologies had been critical to their crisis responses. Companies that had scaled Industry 4.0 use cases prior to Covid-19 found themselves better positioned to respond to the crisis. And some 65 percent of respondents said they were more optimistic about the prospects for digital technologies than a year ago.

A new awareness

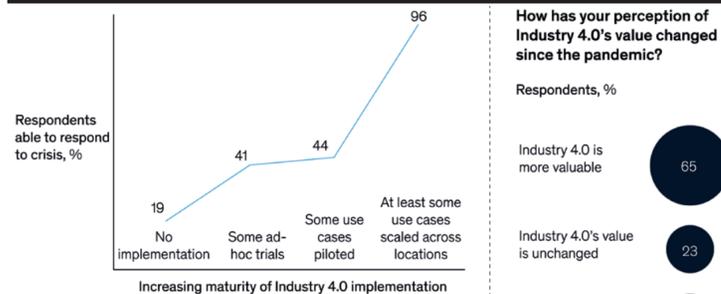
The pandemic has also forced companies to re-evaluate the progress of their own digital transformations. Compared to last year, there is a significant drop in respondents'

Executives across countries and industries have reported on their organization's post Covid Industry 4.0 progress



¹ Association of Southeast Asian Nations

Companies whose Industry 4.0 implementation is more mature report stronger ability to respond to crisis



How has your perception of Industry 4.0's value changed since the pandemic?



LILLOSIGILLO has revolutionised the food industry in terms of **quality control** and **supply chain traceability**.

OPLA A simple instantaneous tag for product coding and identification.

Pre-cutted labels in plastic endorsed for **contact with food**. The labels are provided on spools and **easy to be applied** on products strings. All variable data can be printed.



Azienda certificata ISO 22000 e ISO 9001
Certificati Bureau Veritas IT235967 - IT235953



ITASYSTEM® SRI
Via Girelli 11/c
25125 Brescia - Italy
P +39 030 268 10 58
F +39 030 268 21 26
info@itasrl.com
www.itasystem.com

logies they use to do so. Agility and flexibility in operations have emerged as top strategic priorities above raising productivity and minimizing cost, which used to be the primary objective for most. Similarly, technologies that enable remote working and collaboration topped the list of priority, with more than half of respondents working on projects in that area. In second and third place came technologies to aid collaboration and visibility across the end-to-end supply chain, reflecting the need to manage volatile and disrupted supply networks.

The respondents from the automotive sector report the greatest progress in the application of Industry 4.0 technologies, while energy and materials companies and CPG players report the least. Companies in the travel, transport, and logistics sector were the only group to report significant progress over the past year, with 17 percent saying they had successfully scaled multiple Industry 4.0 technologies, compared to only eight percent last year.

Towards a 'new normal'

The transition to a post-Covid-19 next normal has changed the context for many digital projects. Months of unexpected costs and dampened sales have left many businesses short of cash for technology investments.

The crisis is changing the strategic context too, affecting different sectors in widely differing ways. Some industries, such as aerospace, may be facing the prospect of a prolonged period of suppressed demand. Energy and materials players have seen both demand and prices fall, added to cost pressures. Other sectors, including medical products, are racing to manage high and volatile demand, with sales in some categories breaking records, while others remain well below historical averages. And in many sectors with extended supply chains, continued volatility and disruption is forcing companies to think as much about resilience and flexibility as they have about cost and efficiency.

What to do to keep up

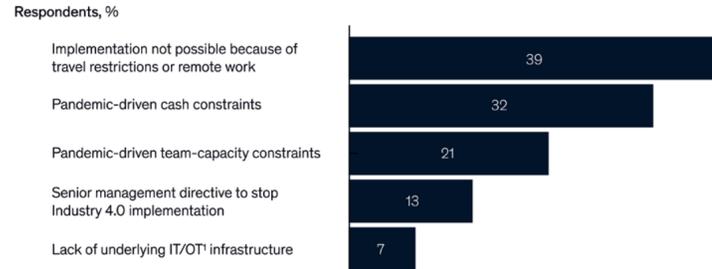
The pandemic has reinforced the message that digital solutions have the most impact when they extend beyond the walls of an organization and encompass more of its end-to-end value chain. At the same time, while lockdowns and travel restrictions remain in place in many regions, companies may be able to progress fastest with approaches that can be implemented remotely. Data analytics technologies, for example, may be easier to scale across multiple sites.

Companies will also need to think carefully about the trade-offs they make between speed and scalability. Quick fixes and temporary workarounds can accelerate the early implementation of digital solutions, but projects that start this way often need time-consuming and expensive reengineering to work at scale later. These issues can be minimized by making smart technology choices early in the project lifecycle. The use of cloud-based solutions or standardized Internet of Things (IoT) platforms, for example, can accelerate the initial deployment of new solutions and support their large-scale application.

There are no easy fixes to talent and organization challenges, however. Companies will need the right people and the right processes in place to support their Industry 4.0 ambitions. The post-Covid-19 economic environment might make it easier to hire people with some of the critical skills companies will need in the coming years, such as in data science and IoT engineering. As businesses across the world face a painful transition to the post-Covid-19 next normal, some companies may be tempted to slow, or even pause, their digital transformations. For most, that would be a mistake. The better option for most businesses is to focus their digital efforts, targeting the most strategically important opportunities and aiming to achieve real scale at an accelerated pace.

The crisis forced some companies to halt their Industry 4.0 investments

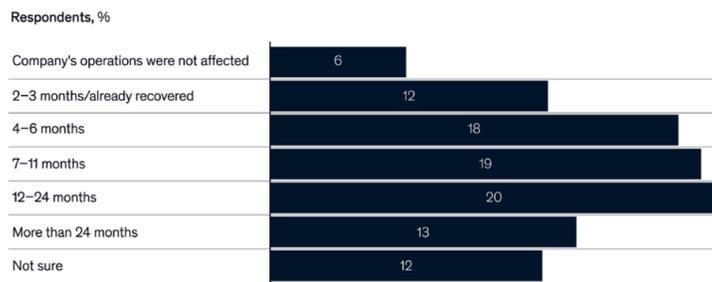
Top two reasons our company is no longer implementing Industry 4.0



1 Information technology/operation technology

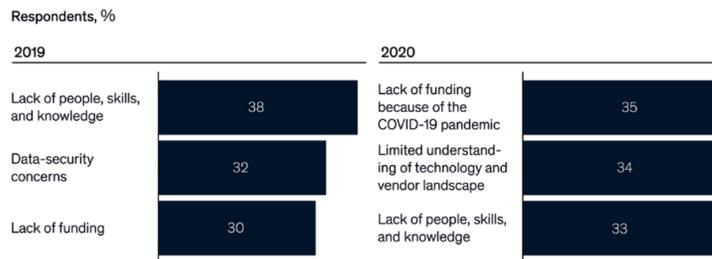
Half of respondents expect full recovery of manufacturing and supply chain will take at least 6 months

What time frame do you expect for full recovery of your manufacturing and supply chain operations after the pandemic?



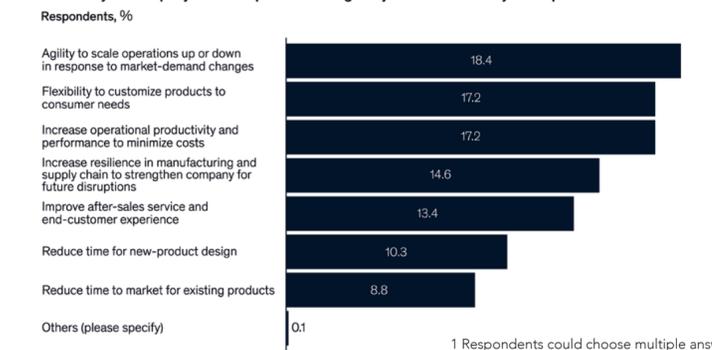
Funding problems now match people and knowledge constraints as barrier to Industry 4.0

The 3 biggest challenges facing your company in implementing Industry 4.0 solutions in the current environment



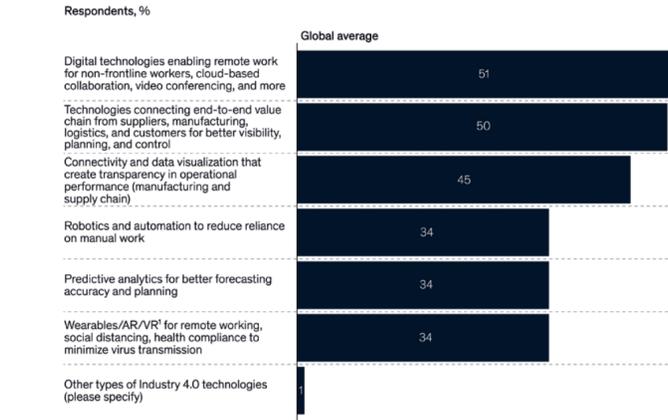
Agility and flexibility are now higher strategic priorities than cost

What are your company's most important strategic objectives for Industry 4.0 implementation?



Remote work, supply-chain connectivity, and operational transparency are major focus areas for Industry 4.0 technologies

Which technologies are you focusing on the most when implementing Industry 4.0 use cases?



1 Augmented reality/virtual reality

Source: McKinsey & Company



Industria 4.0, verso nuove sfide

Per molte aziende, le nuove tecnologie hanno svolto un ruolo decisivo nel rispondere alla pandemia. Nel 2020, di fronte alla più grande crisi sanitaria ed economica della storia recente, le società di tutti i settori sono state costrette ad adottare misure straordinarie per tutelare le proprie attività. Un sondaggio di McKinsey, intitolato "Un punto di svolta per l'Industria 4.0", ha analizzato l'impatto del Covid-19 su un campione di oltre 400 imprese evidenziando come, per gran parte di esse, l'Industria 4.0 e le tecnologie ad essa collegate siano state fondamentali per garantire il funzionamento delle attività durante la crisi. In generale, circa il 65% degli intervistati si mostra più ottimista sulle prospettive delle tecnologie digitali rispetto a un anno fa. Tuttavia, gli investimenti pre-pandemia stanno aumentando il divario tra le imprese più digitalizzate e quelle ancora in fase di evoluzione. Per queste ultime, il ritardo tecnologico è aggravato da una limitata capacità di investimento dovuta alla situazione economica attuale, che sta rendendo ancora più difficile la ripresa. Ma, secondo l'analisi di McKinsey, non è questo il momento di procrastinare i propri sforzi in ambito digitale. È anzi tempo di investire, modernizzare e assumere personale con le giuste competenze tecniche (come analisti e ingegneri IoT), con una visione il più possibile a lungo termine.

end

WEB SKIN



SUSTAINABILITY MADE EASILY AND AFFORDABLY

ALL THE BENEFITS OF THERMOFORMING COMBINED WITH THE ADVANTAGES OF THE TRAY SEALER



MADE FROM REEL
Eliminating the costs of manufacturing, storing and managing pre-cut cardboard blanks.



EASY PEEL

PRINT ALWAYS PERFECTLY CENTERED

- UP TO 35% SAVING ON PACK COST
- SUSTAINABLE WITH 90% OF RECYCLABLE PAPER
- SKIN PROTRUSION UP TO 50 MM FOR BEST PACK APPEARANCE

MULTIPLE PACKAGING TECHNOLOGIES: ONE SINGLE MACHINE



Beverage: a market snapshot

Wine, beer, and spirits. Packaging materials, areas and the impact of Covid-19. Mordor Intelligence provides an overview of the sector.

by Eleonora Cazzaniga

With the rapidly growing attention to sustainability and recycling, the beverage packaging industry, which is worth a huge Usd 132.16 billion in 2020, is constantly innovating itself. The increasing demand for more eco-friendly solutions, and the strict legislations about waste compel companies to find alternative and recyclable materials. Moreover, the Covid-19 pandemic is having a huge impact on the retail supply chain, boosting e-commerce popularity and changing the logistics regulation to make the packaging suitable for deliveries. Data analyst and advisory firm Mordor Intelligence has carried out a survey to depict the global market of alcoholic drinks packaging, focusing on materials, areas and the impact of the ongoing health emergency.

Alcoholic drinks, increasing demand in China

The alcoholic drinks packaging market was estimated at 29.84 billion dollars in 2020, and according to Mordor Intelligence it is expected to reach a value of Usd 38.87 billion by 2026, with an annual growth rate of 5.06% between 2021 and 2026.

As it includes various types of drinks, such as wine, beer, and spirits, the alcoholic beverages packaging market is characterized by a wide range of materials. Major manufacturing companies in the alcohol industry choose attractive packaging formats, which include ceramic glass bottles, whiskey pouches, bag-in-box, and bag-in-tube. If for soft drinks and water packaging the most common material is plastic, in this industry, glass is yet mostly preferred, as it does not react with the alcohol, keeping the chemical composition of the contents intact, as well as its strength, aroma, and flavor. Dark glass bottles are particularly used for alcohol packaging, as it protects the packed liquid from alteration caused by light. Nonetheless, metal packaging is gaining popularity: many manufacturers choose it because of its better hermetic sealing and high mechanical strength.

Geographically speaking, even if the biggest market for alcoholic drinks is still represented by North America, China is the country with the biggest growth rate. According to the International Organization of Vine and Wine (Oiv), the wine consumption volume in China increased by 64.2% between 2009 and 2017, and it doesn't seem to slow down. Which surely represents a favorable scenario for packaging demand. As stated by the Mordor intelligence research, the biggest player of the market is Amcor Plc, an Australian-American company headquarter in the Uk. Followed, in order, by Mondi Group (Uk), Saint Gobain Sa (France), Tetra Pak International Sa (Sweden), and Ball Corporation (Us).

Wine, the 'online revolution'

Global packaging market for wine also shows a positive growth rate, expected to re-

ach 2.65% during the next five years, according to Mordor Intelligence.

In the distribution and retailing ecosystem, the demand for wine is popular in a wide variety of labels and packages: kegs, cans, cartons, plastic bottles boxes, and glass bottles in various sizes, to mention but a few. At the moment, the most used material in the sector is still represented by glass bottles, the long-time traditional wine containers. However, the market is offering an always wider variety of alternative package sizes and formats. The wine packaging sector seems indeed pretty dynamic, showing some emerging trends that have become popular or that are expected to. Twist-off corks, bottle wraps, thinner eco-glass, laser-cut labels, etched glass, shrink-wrap sleeves, special cases for smaller wine bottles, cans, paper bottles, stacked singles, and new-label materials, such as wood veneer, cork, metal, rubber, and resealable bottles, all represent new and viable options for this market, according to the study. For example, the United States, which belong to the area with the highest consumption of wine (33 million hectoliters in 2019 according to Oiv), are currently seeing a high popularity of the four-pack, 187 ml wine bottles, due to their portable natures. Moreover, the increasing demand and robust technological advancements are expected to occur for single-serving container options, such as plastic bottles, aseptic cartons, and aluminum cans, as they own the advantage of enabling the wine to be taken to or sold in places that typically prohibit glass containers.

The Covid-19 pandemic has also surely impacted on wine packaging market, especially for what concerns supply chains and retail channels. E-commerce has indeed witnessed a constantly increasing demand in this sector too, especially because people were not able or didn't feel safe to go buy wine in stores. Not to forget the booming request for same-day delivery of food and drinks, but also

for the online sales from retailers and smaller wineries. This is why the usage of alternative packaging materials is currently seeing a huge boost, especially because of logistics and packaging-base regulations for e-commerce deliveries.

Beer, growth potential in Asia-Pacific

The beer packaging market is constantly evolving too, and it's expected to grow by 3.6% by 2026. Alongside with the growing love of consumers for the amber colored drink, the attempts to find the perfect material to best enhance its taste and to keep it cold for longer are central to the industry, which is now riding a wave of popularity for innovative packaging solutions. During the past decade, due to the changing lifestyle trends and increasing affordability of beer across the globe, the packaging production has gained significant traction.

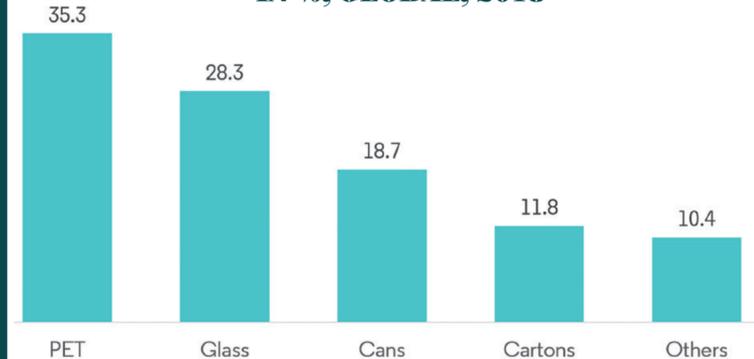
Beer's packaging is so diverse, in fact, it can be difficult to assess the performance of each package, especially across different regions where local laws, regulations, tastes, culture, and other drivers influence the packaging

landscape. For example, in the United States, which represent the largest market, beer is sold especially in cans. Nonetheless, states Mordor Intelligence, glass is expected to gain popularity globally. First of all, reusability and the ability to keep beer fresh for a longer period of time as compared to other alternative materials, are supposed to boost glass use in the beer packaging market. Moreover, the lack of chemical interactions with the content and the ability to protect it from the light, could increase its share in the market production too. The research shows, in fact, that a dark bottle can provide up to 99.9% protection from ultraviolet rays.

The beer packaging market is very fragmented, with the vendors competing in terms of price, capacity, volume, product quality, and technological innovation. Nonetheless, the production in Asia-Pacific is growing fast, primarily driven by changing cultural trends, the expanding population, strong urbanization, and the rising popularity of beer among the younger people. Moreover, big companies are now investing in local manufacturers, offering high growth potential for the beer packaging industry in the area.



PACK MIX OF BEVERAGE BY PACKAGING TYPE, IN %, GLOBAL, 2018



Source: Krones

Imballaggi e beverage: una fotografia del mercato

Con la crescente attenzione verso la sostenibilità e il riciclo, l'industria degli imballaggi per il beverage, che vale l'enorme cifra di 132,16 miliardi di dollari nel 2020, è in costante innovazione. Infatti, la domanda sempre maggiore di soluzioni ecologiche e le rigide normative sui rifiuti costringono le aziende a trovare materiali alternativi e riciclabili. Inoltre, la pandemia di Covid-19 sta avendo un enorme impatto sulla catena di approvvigionamento e sul retail, aumentando la popolarità dell'e-commerce e cambiando la regolamentazione della logistica per rendere gli imballaggi adatti alle consegne. La società di analisi e consulenza Mordor Intelligence ha condotto un'indagine sul mercato globale degli imballaggi per bevande alcoliche, concentrandosi su materiali, aree in rapida crescita e l'impatto dell'emergenza sanitaria in corso.

On the road to Meat-Tech 2021

Sustainable packaging was the main theme addressed during the first webinar that paves the way to the Milan trade show (22-26 October). From the creation of the MYipackima digital platform, to the launch of the second edition of the Packaging Speaks Green international forum.

by Aurora Erba

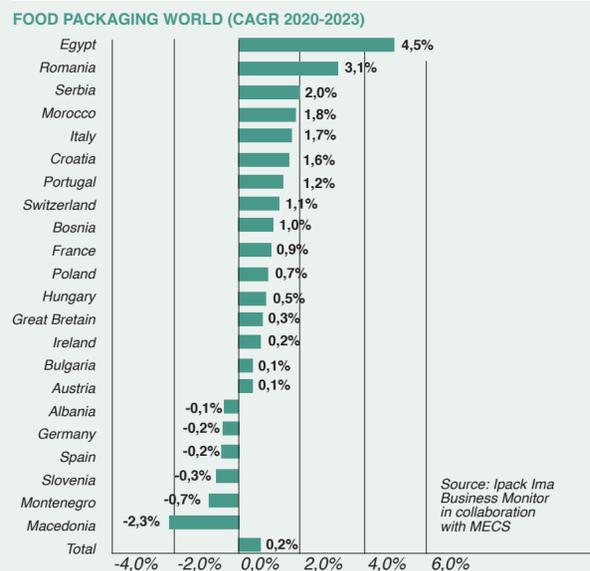
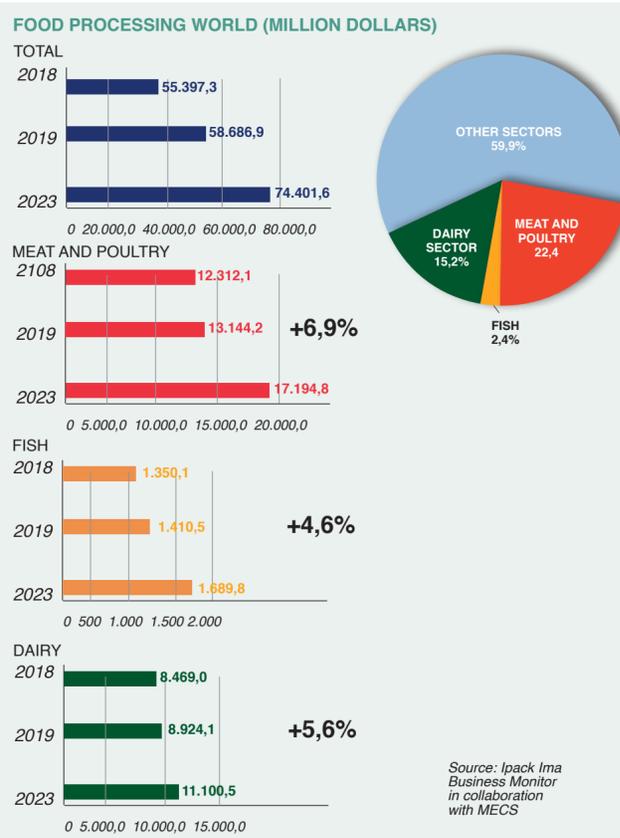
The first digital event promoted by MYipackima is dedicated to a very timely theme, which is eco-friendly packaging. It is part of the journey which will lead business players and companies towards the next edition of Meat-Tech, the trade fair dedicated to processing and packaging solutions for meat, derivatives and ready meals industry, which will take place at Fiera Milano Rho exhibition center from October 22 to 26, 2021. The webinar was presented by Rossano Bozzi, Ceo of Ipack Ima. Nicola Levoni, president of Assica (Industrial Association of Meats and Cured Meats), was given the floor firstly, as he has been working for years with the trade show organizers to coordinate Meat-Tech. Stefano Mele, Ceo of Fabbri Group, has joined the discussion to outline the sector prospects, together with Simone Pedrazzini, executive director of Quantis Italia, Luigi de Nardo, who represents Milan's Politecnico University, and Nella Bovis and Giovanna Sacani, researchers of SSI-CA (Experimental Station for the Food Preservation Industry).

"Packaging sustainability is highly strategic for the meat and deli sector, which is often considered environmentally unfriendly. However, in the last 20 years, it has taken a huge step forward," Nicola Levoni explains. He also highlights the urge for business players to physically go back to confront themselves within international markets: "Our sector is made of raw materials and technologies. But business and clients play a key role, too. And

we can meet them at trade fairs." Therefore, many expectations are placed on Meat-Tech 2021, which will be held in October alongside Tuttofood (the international B2B exhibition dedicated to the food sector) and HostMilano (the hospitality and hotellerie international exhibition).

Great news for Meat-Tech 2021

Meat-Tech has always been dedicated to processing and packaging solutions for the meat, deli and ready meals sector. However, this year wide space has been given also to the fishing and the dairy industry (milk and yogurt excluded). "The exhibition is dedicated to the Italian market, but it has an international overview," claims Rossano Bozzi, Ceo of IpackIma. "It is built day after day based on the industry's evolving demands. Moreover, it gets some help from trade associations, such as Assica, Assofoodtec (Italian Association of Manufacturers of Machinery, Plants and Equipment for Food Production, Processing and Preservation) and Ucima (Italian Packaging Machinery Manufacturers Association)." The event will further explore the whole supply chain: from ingredients and packaging solutions to materials and pack technologies. In addition to those segments which are fundamental for the manufacturing world: labelling, traceability, hygiene, sanitizing and packaging in the clean room. Moreover, Meat-Tech will host Packaging Speaks Green, the international forum on sustainable



FABBRI GROUP AND THE COMPOSTABLE FILM 'NATURE FRESH'

"Sustainability: is it a duty or a chance?" This was the title of the speech delivered by Stefano Mele, Ceo of Fabbri Group. The company has its headquarters in Modena (Emilia-Romagna) and is specialized in the machinery and film production for fresh food packaging. Back in 2015 the factory had already understood the importance of developing solutions able to respect environmental sustainability criteria. "Plastic is a very useful material, but its lifecycle management raises big problems," claimed Stefano Mele. "Which is why we decided to produce a compostable film that can be thrown away in the wet waste bin. This is how, a year ago, Nature Fresh was born." Despite the issues caused by the pandemic, the new film gained great success abroad. For instance, it was adopted by the English meat producer Westaways Sausages, which was given the award 'Innovation of the year' for its fully certified compostable sausage pack during the UK Packaging Awards 2020. "Nature Fresh was so successful that we decided to develop a new compostable film for modified atmosphere packaging. New tests are going to start soon."

packaging organized by Ucima and whose latest edition took place in Bologna in February 2020. "The pandemic forced us to postpone the event, however it is returning live during Meat-Tech 2021," claims Bozzi, who also presents a brand-new agreement settled with Hi-Food, a company specialized in natural ingredients which shows a hybrid approach between the animal and the vegetable world. "Together, we are planning three technical conferences dedicated to plant-based food. The array of themes will include 'veggy dairy', 'Italian veggy patty' and 'veggy ready meals'." Many activities will be dedicated to incoming buyers, too. For the occasion, on April 15th a business matching tool named MYipackima was activated. All exhibitors and buyers have access to the online platform in advance. In addition, the Ipack Ima Business Monitor was created in collaboration with MECS, a research center specialized in capital machinery systems. During Meat-Tech it will focus on meat, the fish industry and the dairy sector, providing participants with production data, consumption, predictions and the list of the most involved companies that operate both in the processing and packaging field. "A statistical support to make the buyers' scouting more efficient, effective and in line with the demand-supply system," claims the Ceo.

Verso Meat-Tech 2021

Il packaging sostenibile al centro del primo evento di accompagnamento alla fiera (in programma a Milano dal 22 al 26 ottobre). Tante le novità in cantiere: dall'apertura al lattiero caseario alla creazione della piattaforma MYipackima. Oltre al lancio della seconda edizione di Packaging Speaks Green.



the Italian Cheese Culture

FREEZE-DRIED CULTURES for PIZZA CHEESE



STANDARD FERMENTATION LEAD-TIME



INCREASED PORTIONING AND STRETCHING FEATURES



IMPROVED FORMULA NO BROWNING DURING BAKING



ENRICHED FLAVOR PROFILES AND AROMA

www.alce.eu



sales@mofinalce.it alceinternational@mofinalce.it



CHINA

The packaging rush has begun

The Government's plan to turn the country in a 'manufacturing giant' by 2025 discloses great business opportunities for Italian technology suppliers. Provide that they are ready to a very competitive landscape, especially from other international players in the high-end market.



The China packaging machinery sector is fragmented, with around 7,916 domestic enterprises (2019). Domestic production is mainly concentrated in the low to mid-end packaging machinery segment: about 60 established domestic enterprises, catering to more price sensitive domestic customers and key export markets.

As far as concerns global trade, Italy ranked 2° in China's overall packaging machinery imports in 2019. Germany and Japan are the other two countries among the top three exporters to the country. The trend of China's imports and exports with Italy is generally in line with China's total imports and exports as well as the overall domestic market value.

Most of the high-end segments in the forming, filling, sealing, wrapping, bundling, palletizing and labeling & coding machinery categories are instead dominated by large foreign brands and corporations. Many well-known international packaging machinery manufacturers have already established a solid presence in China - including Krones (Germany), Bosch (Germany), KHS (Germany), Coesia Group (Italy) and Tetra Pak (Sweden). So far, German, Italian, Japanese, US and Swedish players shared the majority of domestic demand for high-end packaging machinery due to a lack of viable alternatives from the domestic players. But now a few leading domestic players are investing in technology and innovation to fill this gap. The entry for Italian (especially small and medium) enterprises may therefore require substantial investments and time.

There are many other small to medium-sized foreign packaging machinery manufacturers - mainly from Taiwan and Japan - in China.

A fast growing market

Between 2014 and 2018, China's packaging machinery industry market size grew with a 3% Cagr, complemented by an equally robust growth (~14.2% Cagr) in domestic industrial output within the same period. In 2018, the total market size of China's packaging machinery grew rapidly to 5 billion euro (RMB 39.4 billion), almost close to tripling the 2009 market size of 2.2 billion euro (RMB 17 billion). By the end of 2020, the demand was expected to reach 6 billion euro. Currently, the local administration brings up with the so-called 'Made in China 2025' strategy, which aims to transform China from a manufacturing giant into a world-class manufacturing power, driven by innovation and emphasizing quality over quantity, to narrow the gap with international advanced levels and strengthening the own developmental power. In such a context, the imports volume of China's market is hitting a record low.

What China wants

Forming, filling, and sealing machinery is the most widely used product category in China, and it is forecasted to remain the top category in 2021. Consumer products such as f&b, pharmaceutical, tobacco accounts for more than 70% of total packaging market demand. F&b downstream market is and will continue to pose the largest demand for packaging in China. From 2019 onwards, packaging machinery imports are expected to keep steady, more in line with the overall global economic situations, driven by the modular demand growth in each of packaging machinery's downstream markets in China. The largest market for packaging machinery is and will continue to be the f&b packaging sector, since consu-

mption for prepackaged f&b products are expected to increase quickly as number of urban middle class households increase over the next decade.

Main customers include OEM (Original Equipment Manufacturer) packaging service providers, large integrated logistics companies, large f&b enterprises like Wahaha, Yili, household product manufacturers like P&G, Unilever as well as players in the industrial sector, such as cement manufacturing, agricultural chemical companies. Large retailers with significant

control over their private label/own-brand products will also be customers with the need for high quality packaging machinery; these retailers usually developed integrated supply chain and logistic networks that involves the use of primary and secondary packaging in the process. Automated large-scale packaging machinery lines will also see robust growth as rising labor costs in China becomes one of the key impediments for manufacturing enterprises in boosting profit margins.

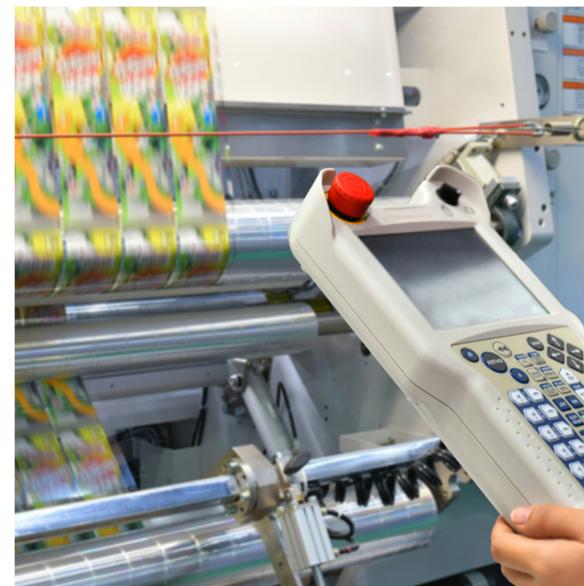
Federica Bartesaghi

Italian machineries are known in China for their excellent packaging performance, sophisticated appearance and generally lower costs as compared to their competition, starting from Germany and the U.S.

Forming, filling, sealing machinery remains the most widely used product category in China, and it is forecasted to remain the top category in 2021

Italy ranked 2° in overall packaging machinery imports in 2019

The largest market for packaging machinery still remains and will continue to be the f&b packaging sector



IMPACT OF COVID-19

Although the full impact of the Covid-19 pandemic on the world economy remains unclear, the pandemic is impacting the packaging and processing machinery sector in an obvious way, and in China too. The increasing needs for packaged f&b items due to confinement, home working and less eating out are boosting the usage of packaging machineries. The pharmaceutical industry is anticipated to make a significant growth due to the medical needs from Covid-19. There is an increasing number of contracted manufacturing of pharmaceutical products and the introduction of several new regulatory standards on packaging are driving the segment growth.

turboalgor
COLD ENERGY SAVING

UP TO **+23%**
ENERGY SAVING

UP TO **+56%**
COOLING POWER

THE TURBO THAT MAKES GREENER THE COLD INDUSTRY

FROM 20 TO 300 kW. THE REVOLUTION OF REFRIGERATION SYSTEMS

FOOD INDUSTRY CHEMICAL INDUSTRY GDO & RETAIL REFRIGERATED LOGISTIC PHARMA INDUSTRY

Turboalgor guarantees companies operating along the cold chain an energy saving up to +23% and an increase in cooling capacity up to +56%

Find out who has already chosen Turboalgor on www.turboalgor.it or contact us at info@turboalgor.it

follow

INDONESIA Plastics applications are booming

The health emergency and the populations higher spending capability are driving growth in the packaging market. Especially for PET in the f&b industry. With a 19.46% market share, Italy is the country's 2nd largest supplier (Germany is 3rd at 19.43%).

Due to the pandemic, the food industry is the only sector that has been experiencing a growth in the country, along with the packaging industry. Covid-19 pandemic has indeed created a greater demand for plastic packaging. And production is expected to keep on growing.

The Indonesian packaging market was valued at 101,232.4 million units in 2016 and is estimated to grow at a Cagr of 5.2% to reach 130,325.8 million units in 2021. Flexible packaging is the largest packaging type accounting for 42,538.6 million units (2016), while Rigid plastics is estimated to witness the highest growth with a Cagr of 7.7% between 2016 and 2021. Strong favorable demographic factors such as increasing disposable income levels and spending capabilities, rising consumer awareness and a hectic lifestyle of busy professionals are driving the growth of the country's packaging industry. In the packaging sector, some of the major applications of engineering plastics are in the packaging of bottled water and in flexible packaging - such as sausage skin, flexible foils, shopping bags.

Plastics applications

Polyethylene terephthalate (PET) is one of the plastics most used for packaging purposes in Indonesia, mostly in the food and beverage industry. Portability, design flexibility, ease of cleaning, light weight, and protection against moisture are the PET properties which makes it suitable for packaging

Indonesia: cresce l'industria della plastica

L'emergenza sanitaria e una più elevata capacità di spesa della popolazione guidano la crescita del mercato del packaging locale. Soprattutto per quanto riguarda le applicazioni del PET nell'industria del confezionamento alimentare. Con una quota di mercato del 19,46%, l'Italia è il secondo maggiore fornitore del paese (la Germania è terza, con il 19,43%).

purposes. In addition to low handling hazards, low toxicity, absence of bisphenol A (BPA) and heavy metals. PET's are used for making clamshells, bakery and take-out containers, microwavable food trays, carbonated soft drink bottles, and other packages. Other applications include packaging materials for cooking oils, shampoo and hand wash.

Polyamide is another major engineering plastic that finds major application in the packaging sector. Bi-axially oriented and non-oriented polyamide films are used in medical and food packaging, owing to the former's high impact strength and good heat resistance. Increasing household and commercial applications for containers, plastic bags, canisters, and tableware, among others, are expected to drive the consumption demand for plastics in the packaging sector.

The usage of plastics for packaging products is expected to experience a fairly steady demand during the forecast period. Requirements for rubber gloves in the healthcare sector, stretch films, garbage bags, and other medical devices, are anticipated to witness greater demand in the coming years.

Federica Bartesaghi

THE INDONESIAN F&B MARKET

With a population of around 274 million in 2020, Indonesia provides a huge market for food and beverage products. One of the fastest growing in the South East Asia. Various factors, such as economic growth, increasing urbanization, young affluent population, and food health and safety concerns have led to a surge in the industry.

Indonesia has a large youth population (according to the Economist Intelligence Unit, Jakarta will be the city with the largest young and consumptive population in the world by 2030), and this is expected to drive demand for more westernized products such as bakery and pastry products, processed meat, cocoa and coffee and confectionery goods.

Growing trend of food intakes are enhanced of vitamins and minerals. Fortified milk products target weight-lossers, body-builders and breastfeeding mothers. Convenience foods are also benefiting from the urbanization and the growing office workforce. Ready-to-drink coffee and tea is seeing particularly fast growth, while fruit and vegetable juices as well as sports and energy drinks are also outperforming.

The share of Italy in Indonesia's total food import is still very low, below 1%. Italy's food products mainly was for edible oil (olive oil), cereal wheat products (pasta, bakery, paste, dairy products, fruits, confectionaries, coffee, ingredients etc.). However, the potential trade exists: Italian consumer products are always considered to be an upper market segment that link to the lifestyle but for food and beverage products, there is a big chan-

ge in food habits where Italian food and beverage are welcome and even becoming popular. Nowadays, casual coffee shops are selling spaghetti, pizza, cappuccino, espresso, caffè latte, up to Italian wines.

Expected rising imported foods and ingredients into Indonesia are not only to meet the local consumers but also to meet the demand of ingredients and raw materials for food processing industries.

Based on the historical import growths and expected rising consumption of selected food, future imports of selected foods and beverage can be projected: +12% a year for coffee, +12-17% a year for chocolate, and +10-12% per year for pasta and bread. The growth of imports of cheese and curd is relatively stagnant at around +2-3% a year as also imports of tomatoes preparations at around 2-3% a year.



INDONESIAN IMPORTS OF PACKAGING MACHINERY ITALY MARKET SHARE & OTHER COMPETITOR COUNTRIES IN 2017 - 2019 -2020 (JAN-APRIL)

Product	Country Of Origin	Value CIF (Million US\$)					Change (%)	Value CIF (Million US\$)					Change (%)	Net Weight (Thousand Tons)					Change (%)		
		2017			2018			2019		2020				2017			2018			2019	
		2017	2018	2019	2018	2019		2019	Jan-Apr 2019	Jan-Apr 2020	to Jan-Apr 2020	2017		2018	2019	2018	2019	2019 thd 2018		Jan-Apr 2019	Jan-Apr 2020
PACKAGING MACHINERY		458.5	393.4	456.7	100.00	100.00	16.08	160.8	205.9	28.08	11.9	15.5	16.3	100.00	100.00	5.35	4.8	5.9	22.55		
	China	60.3	86.3	96.5	21.94	21.13	11.76	32.3	26.2	-18.88	5.9	8.2	10.3	52.85	63.12	25.84	2.9	3.1	7.52		
	Italy	133.9	68.0	88.9	17.28	19.46	30.73	42.7	50.7	18.70	1.5	3.0	1.0	19.56	6.44	-65.31	0.4	0.5	33.96		
	Germany, Fed. Rep. Of	81.6	64.6	88.7	16.41	19.43	37.40	21.3	61.8	189.43	1.2	1.1	1.0	7.37	6.06	-13.40	0.3	1.1	236.20		
	Japan	41.9	50.8	53.9	12.92	11.80	6.02	17.2	23.9	39.51	0.5	0.5	0.6	3.35	3.79	19.19	0.2	0.2	28.78		
	Taiwan	13.7	13.8	22.4	3.50	4.90	62.19	4.3	7.2	68.90	0.6	0.7	1.2	4.50	7.35	72.11	0.3	0.3	36.43		
	Korea, Republic Of	12.9	17.1	20.6	4.35	4.51	20.28	10.0	5.7	-42.47	0.3	0.5	0.5	3.04	3.35	16.01	0.3	0.1	-45.60		
	Others	114.1	92.8	85.8	23.59	18.78	-7.57	33.0	30.3	-8.04	1.9	1.4	1.6	9.34	9.89	11.58	0.5	0.5	-11.31		

Sources : Central Bureau of Statistics based on HS Code : 8422200000 – 8422909000

The usage of plastics for packaging products is expected to experience a fairly steady demand

Flexible packaging is the largest packaging type



Grater line

The tradition of precision in grated cheese.



GRATER TIGER'S EYE MODEL



INDIA The food-tech 'wonderland'

The country is becoming a preferred hub for the packaging and processing industry. Also thanks to the 'Mega Food Park Scheme', aimed at the creation of a modern and efficient local infrastructure. Launched, on the past weeks, the first Italian pilot project.



India: il 'Paese dei sogni' delle food technologies

Negli ultimi anni, il Paese è diventato un hub preferenziale per l'industria della lavorazione e del confezionamento alimentare. Grazie anche al 'Mega Food Park Scheme', il programma lanciato dal Ministero indiano dell'industria della trasformazione alimentare con l'obiettivo di efficientare e modernizzare la filiera alimentare. Avviato, nelle scorse settimane, il primo progetto pilota italo-indiano.

PACKAGING

Packaging is among the high growth industries in India, developing by around 22-25% per year. Currently, it is the 5th largest sector of India's economy, and has reported steady growth over the past years. This growth is primarily driven by factors like growing pharmaceutical, food processing, manufacturing industry, FMCG, healthcare sector. As well as increase in per capita income, urbanisation, and increase in the number of working women in the country, that boost the expenditure on packaged foods. As per the Indian Institute of Packaging, the packaging consumption in India has increased to 200% in the past decade, rising from 4.3 to 8.6 kg per person per annum. In addition, the rapid expansion of organised retail, the growth of exports and the booming e-commerce sector has also contributed to the market's growth.

Market size and government initiatives

In 2019, the global packaging industry was seized at 278.59 billion USD. The Indian packaging market was valued at 50.5 billion USD, and it is expected to reach USD 204.81 billion by 2025, registering a Cagr of 26.7% during the period of 2020-2025. The plastic packaging market, in detail, is expanding rapidly, registering a growth of 20-25% per year and is valued at 6.8 million tons, while the paper packaging industry stands at 7.6 million tons.

The Indian packaging industry has made a mark with its exports that comprise flattened cans, printed sheets and components, crown cork, lug caps, plastic film laminates, craft paper, paper board and packaging machinery, while the imports include tinplate, coating and lining compounds and others. In India, the fastest growing packaging segments are laminates and flexible packaging, especially PET and woven sacks.

Covid-19 may have considerably derailed the growth of the Indian packaging industry. However, certain manufacturing sectors, such as pharmaceuticals, packaged food and beverages, functional food and hygienic products among the Fmcg, have

been less affected by the crisis, and have rather seen a sizeable growth both in demand and in production.

By far with a low share of 1.4% in global exports, India is a net exporter of packaging materials. This was estimated at 843.8 million dollars in 2018-19, witnessing a y-o-y growth of 14.1%. India has emerged as market leader in quite a few sub-segments of packaging, such as the Flexible Intermediate Bulk Container (FIBC) and Biaxially-oriented Polyethylene Terephthalate (BOPET) films.

Nevertheless, China dominates the sector and is the largest manufacturer and exporter of packaging materials and products globally. While the trade in the sector has been severely affected by the global pandemic lockdowns as in the case of other sectors, the pandemic driven isolation of China have been forcing the packaging companies worldwide to relook at their supply chain vulnerabilities, which is accelerating shifting of their businesses and sourcing to other second world countries, preferably India.

A competitive market

The packaging Industry in India is fragmented in nature, owing to the several players competing to improve their market share. With the rising demand for packaging applications, along with technological advancement across the Indian economy, many companies are increasing their market presence by expanding their business footprint across various end-user



markets. Major players include WestRock India Pvt. Ltd, OJI India Packaging Pvt. Ltd, Deccan Cans & Printers Pvt. Ltd, among others.

Excise duty on plant and machinery for packaging and processing has been brought down to 6% from 10%. While the government has imposed anti-dumping duty on import of aluminium and aluminium foil under tariff item 76071190 (largely from 0.69- 1.63 dollars per kg), similar duty must be levied on aseptic packaging imports since it contains aluminium foil even though it falls under a different tariff code.

Trends and challenges

Packaged food is the fastest-growing segment in the Indian packaging industry. It is expected to fuel the demand for plastic packaging, as it ensures food quality, safety, and long shelf life. According to Agriculture and Agri-food Canada, the sales of packaged food in India amounted to USD 76,284.2 million in 2018, and it is expected to register a Cagr of 18% during up to 2025.

Plastic packaging is also expected to have significant market share. The industries where plastic bottles and jars are mostly used in the country include food and beverage, cosmetics and personal care, and pharmaceuticals industries. Polyethylene terephthalate (PET) and HDPE are the preferred materials for the manufacturing of bottles and jars in India. There are some applications, where PVC is still being used to manufacture bottles, jars, and vials.

However, due to the increasing environmental concerns, the manufacturers are trying to shift to PET and HDPE.

Financial incentives to the flexible packaging industry to promote recycling, bio-degradability and sustainability should be enhanced, given that waste management is one of the most critical matters for the industry. Today, the industry is facing some of the challenges that contain an absence of clarity in food packaging regulations, consumers' opinions on viable packaging, and stress on environmental friendly packaging materials.

E-COMMERCE IS DRIVING GROWTH IN RETAIL PACKAGING

The e-commerce retail packaging sector has grown to 65 million monthly unique visitors, accumulating an annual increase of 55%. India's e-commerce revenue is predicted to increase at the highest rate in the world, growing at an annual rate of 51% and increasing to 120 billion dollars in 2020 from 30 billions in 2016, according to an Assocham-Forrester report. India's e-commerce retail market faces an increasing demand for rigid packaging, such as corrugated boxes and cartons due to the packaging's firm structure, preventing potential damage against India's poor road infrastructure. The rigid packaging category makes up 80% of the country's overall packaging market.

The fastest growing packaging segments are laminates and flexible packaging, especially PET and woven sacks

The sales of packaged food in India is expected to register a Cagr of 18% up to 2025

INDIAN OTHER PACKING OR WRAPPING MACHINERY IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	154.60	126.01	136.12	8.02%	100.00%
1	Italy	28.54	22.95	34.72	51.25%	25.51%
2	China	26.11	29.29	30.32	3.54%	22.28%
3	Germany	24.98	14.45	19.97	38.17%	14.67%
4	Japan	15.29	3.77	9.57	153.58%	7.03%
5	Spain	10.97	8.08	8.00	-0.95%	5.88%

Data source: Ministry of Commerce & Industry of India
HS Code 84224000

INDIAN MACHINERY FOR FILLING, CLOSING, SEALING, CAPSULING OR LABELLING BOTTLES, CANS, BOXES, BAGS/OTHER CONTAINERS; MACHINERY FOR AERATING BEVERAGES IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	250.67	214.89	219.90	2.33%	100.00%
1	Germany	70.00	52.92	56.94	7.61%	25.90%
2	Italy	43.71	31.95	43.72	36.84%	19.88%
3	China	35.65	41.53	37.32	-10.14%	16.97%
4	Taiwan	12.77	13.04	13.17	1.04%	5.99%
5	United Kingdom	0.67	8.27	10.81	30.74%	4.92%

Data source: Ministry of Commerce & Industry of India
HS Code 84223000

FOOD PROCESSING

Food processing is one of the largest industries in India in terms of production, consumption, and exports. For this reason the Government - through the Ministry of Food Processing Industries (MoFPI) - is making all efforts to encourage investments in the business. It has approved proposals for joint ventures (JV), foreign collaborations, industrial licenses, and 100% export-oriented units. According to the data provided by the Department of Industrial Policies and Promotion (DIPP), the food processing sector in India has received around 7.54 billion US dollars of Foreign direct investment (Fdi) during the period April 2000-March 2017. The Confederation of Indian Industry (CII) estimates that the food processing sectors have the potential to attract as much as 33 billion US dollars of investment over the next 10 years and also to generate employment of 9 million person-days.

Market size

The food processing industry in India accounts for about 32% of India's food market, and around 11.6%

share of employment in the domestic food industry. It is expected to expand at a Cagr of around 12.09% between 2020 and 2014. It contributes around 8.80 and 8.39 per cent of Gross Value Added (GVA) in manufacturing and agriculture respectively, 13% of India's exports and 6% of total industrial investment. As far as a generation, utilization, and exports, it is positioned as the 5th biggest industry in India. The Indian food market is the 6th largest market on the globe, and it adds to 70% of the aggregate sales.

The Indian gourmet food market is currently valued at 1.3 billion US dollars and is growing at a Cagr of 20%. Based on volume, the fruits and vegetables processing segment is expected to increase at a Cagr of ~14.84%, during the FY 2020-FY 2024 period. Likewise, the dairy, meat, poultry and fish processing segments would increase at Cagrs of ~8.17%, ~17.24%, ~8.99% and 12.03%, respectively. Rising household incomes, urbanization and the growth of organized retail are currently some of the major drivers of this market. India has one of the largest wor-



king populations in the world. With limited time available for cooking and disposable incomes, this segment of processed foods such as ready-to-eat products and snacks have become quite popular, particularly in the urban areas.

Opportunities across the value chain

The levels of food processing in India are much lower than most countries in the world: about 10% of all the produce that gets grown. So to that extent, there is a big opportunity to look at more processing

in the food processing sector itself. There is a demand for ready-to-cook, ready-to-eat products now because of the Covid-19 situation and a need for looking at safe and secure ways of consuming food and therefore there is a big opportunity in food processing.

A major area that has opened up because of Covid-19 is the focus moving away from cereals. Cereals have historically been what the Indian agriculture sector has always focused on, but there is more and more demand for proteins which could be animal or plant proteins and also fresh produce which is horticulture.

The food processing sector has been acknowledged as a high priority industry by the government of India and is currently being promoted with various fiscal reliefs and incentives.

With the government's focus and a favourable policy ecosystem, the food processing sector has been growing at an average annual growth rate of around 8.41% between 2014-18.

THE MEGA FOOD PARK PROJECT

India is called the fruit and vegetable basket of the world. It is the largest milk producer in the world. It is the 2nd largest producer of agri-products and the third largest fish producer in the world. It also ranks among the top three producers of spices and poultry. Yet, despite its strong agricultural production base, a significant amount of food produce gets wasted in India due to inadequate infrastructures such as packaging facilities, storage, transportation, cold chain, and low levels of processing. According to the Ministry of Food Processing Industry (MoFPI), postharvest losses account for 1.5 billion US dollars annually. And therefore today it's making all efforts to encourage investments across the value chain.

The Mega Food Park scheme is a part of the Indian Government's package - the Pradhan Mantri Kisan SAMPADA Yojana (PMSKY) - which will result in creation of modern infrastructure with efficient supply chain management from farm gate to retail outlet.

The scheme is based on a 'Cluster' approach and envisages creation of state-of-the-art support infrastructure in a well-defined agri-horticulture zone for setting up modern food processing units in the industrial plots provided in the park with well-established supply chain. The Government has sanctioned 39 Mega Food Parks. Each one typically consists of supply chain infrastructure including collection centers, primary processing centers, central processing centers, cold chain and around 25-30 fully developed plots for entrepreneurs to set up food processing units.

Launched the first Italian Mega Food Park in India

On April 16th, Italy launched its first ever mega food park project in India, at Fanidhar in the Mehsana district of Gujarat. The pilot project was launched with the signing of a Letter of Intent between the ICE Office in Mumbai and Fanidhar Mega Food Park, in Gujarat. Ambassador of Italy to India, Vincenzo de Luca, and the Ambassador of India to Italy, Neena Malothra, took part to the launch too. The aim of this project is to develop a synergy between agriculture and industry of both countries. It also focuses on the research and development of new, efficient technologies in the sector.

"Specifically, a platform of Italian excellence will be created, which will guarantee technical education, through digital modules, to the management of the Mega Food Park and to the companies established within the structure", Fabrizio Giustarini, director of the ITA Agency in Mumbai explained. The technological needs of the structure will be constantly monitored, in order to present any business opportunities to Italian food-tech companies. "The training activities and the technological offer will be directed to the whole food processing chain, starting from agricultural mechanization to the packaging and management of the cold chain, which is still very critical in India."

The food processing sector has been acknowledged as a high priority industry by the government of India and is currently being promoted with various fiscal reliefs and incentives

More than 30% of the produce from farm gate is lost due to inadequate cold chain infrastructure

The food processing industry has a high concentration of unorganised segments, representing almost 75% across all product categories. Thus, causes the inefficiencies in the existing production system



INDIAN MACHINES FOR CLEANING, SORTING OR GRADING SEED, GRAIN OR DRIED LECUMINOUS VEGETABLES; MACHINERY USED IN THE MILLING INDUSTRY OR FOR THE WORKING OF CEREALS OR DRIED LEGUMINOUS VEGETABLES, OTHER THAN FARM-TYPE MACHINERY IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	116.02	137.81	136.91	-0.66%	100.00%
1	China	62.38	75.30	85.00	12.88%	62.09%
2	Thailand	15.62	11.97	13.76	14.90%	10.05%
3	Turkey	6.23	11.14	9.80	-12.02%	7.16%
4	United Kingdom	10.91	10.90	7.76	-28.76%	5.67%
5	South Korea	4.98	5.48	4.16	-24.09%	3.04%
11	Italy	1.49	1.03	1.10	6.13%	0.80%

Data source: Ministry of Commerce & Industry of India
HS Code 8437

INDIAN MACHINERY, NOT SPECIFIED OR INCLUDE ELSEWHERE IN THIS CHAPTER, FOR THE INDUSTRIAL PREPARATION OR MANUFACTURE OF FOOD OR DRINK, OTHER THAN MACHINERY FOR THE EXTRACTION OR PREPARATION OF ANIMAL OR FIXED VEGETABLES FATS OR OILS IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	216.26	196.07	163.76	-16.48%	100.00%
1	China	42.30	36.35	29.07	-20.04%	17.75%
2	Italy	33.55	32.03	19.55	-38.96%	11.94%
3	Germany	30.01	18.63	17.45	-6.34%	10.65%
4	Netherlands	9.19	20.53	16.36	-20.28%	9.99%
5	United States	19.55	20.73	15.31	-26.15%	9.35%

Data source: Ministry of Commerce & Industry of India
HS Code 8438

INDIAN MACHINERY, PLANT OR LABORATORY EQUIPMENT, WHETHER OR NOT ELECTRICALLY HEATED (EXCLUDING FURNACES, OVENS AND OTHER EQUIPMENT OF HEADING 8514), FOR THE TREATMENT OF MATERIALS BY A PROCESS INVOLVING A CHANGE OF TEMPERATURE; INSTANTANEOUS OR STORAGE WATER HEATERS, NON ELECTRIC IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	701.65	848.39	669.94	-21.03%	100.00%
1	China	184.83	201.27	168.23	-16.42%	25.11%
2	United States	65.75	96.33	98.59	2.34%	14.72%
3	Germany	107.56	131.35	83.33	-36.55%	12.44%
4	Italy	58.14	80.47	54.16	-32.70%	8.09%
5	Singapore	16.32	23.89	43.24	80.97%	6.46%

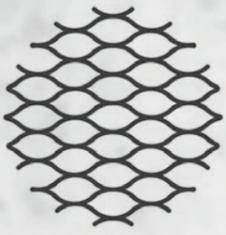
Data source: Ministry of Commerce & Industry of India
HS Code 8419

INDIAN INDUSTRIAL OR LABORATORY FURNACES AND OVENS, INCLUDING INCINERATORS, NON ELECTRIC IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	151.73	190.64	121.40	-36.32%	100.00%
1	China	57.05	78.97	30.47	-61.41%	25.10%
2	Germany	16.18	24.77	24.35	-1.70%	20.06%
3	Italy	23.09	13.23	18.21	37.69%	15.00%
4	Japan	10.56	12.05	10.34	-14.17%	8.52%
5	United States	8.12	21.12	9.05	-57.16%	7.45%

Data source: Ministry of Commerce & Industry of India
HS Code 8417

INDIAN INDUSTRIAL OR LABORATORY ELECTRIC FURNACES AND OVENS; OTHER INDUSTRIAL OR LABORATORY INDUCTION OR DIELECTRIC HEATING EQUIPMENT; PARTS THEREOF IMPORTS (Values in US\$ Mn)						
Rank	Partner Country	2018	2019	2020	% Change 2020-2019	% Share
	WORLD TOTAL	110.57	135.63	108.65	-19.89%	100.00%
1	China	27.06	35.49	31.82	-10.35%	29.29%
2	Germany	22.52	22.88	25.86	13.02%	23.80%
3	United States	10.27	8.99	12.62	40.39%	11.61%
4	Japan	14.80	21.89	6.52	-70.22%	6.00%
5	United Kingdom	4.54	4.06	4.41	8.51%	4.06%
6	Italy	4.56	10.55	4.27	-59.52%	3.93%

Data source: Ministry of Commerce & Industry of India
HS Code 8514



RETIFICIO
NASSI
NETTING LEADER

MARKET LEADER SINCE
1900'S IN THE PRODUCTION
OF FOOD PACKAGING NETS.

IF YOUR PRODUCT IS
UNIQUE, IT NEEDS A
UNIQUE FOOD
NETTING TO BE
WRAPPED WITH.



All our nets, our production area and our warehouse, have been tested and approved according to BRC IOP Packaging REV 6 standard.

DISCOVER ALL OF OUR PRODUCTS
RETIFICIONASSI.COM