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The common sense has been lost

Brussels strategy papers open the way to eco-communism

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With its strategy papers "From Farm to Fork" and "Biodiversity" the EU Commission addresses all areas of animal and plant production, but also processing and labelling. The strategies are explicitly intended to give the EU agricultural sector a worldwide role model – which clearly shows the usual German hubris. But of course the French and Italians are also to be found: their long-standing practice of labelling foreign (milk) raw materials on finished products, which is contrary to the Single Market, is to become an EU standard.

The aim of the strategies is almost awe-inspiring. They are intended to create nothing less than a "fair, healthy and environmentally friendly food system". Hardly anyone in the population will object to a reduced use of crop protection products and antibiotics. The situation is likely to be completely different on the side of agricultural producers, who are only able to supply bulk goods at the prices dictated by the retail trade because of plant protection and the use of antibiotics. So, the signs are pointing an increase of costs of production, especially since the proportion of organic land is set to rise from 8% to 25% of the land under cultivation.

As always, Brussels does not care whether the market plays along with this. In times of a severe recession triggered by Corona hysteria, a recession which is not yet fully felt, consumers will hardly be willing or able to spend more on food. On the contrary, the role of discounters will increase significantly for sales. This means nothing other than even more extreme price and competitive pressure for agriculture under the sign of a pioneering role in sustainability decreed from above.

What reduction targets in the two strategy papers refer to, however, remains open. No concrete targets are named at all, everything becomes blurred in the ambiguously defined concept of sustainability. If Brussels asserts itself with its ideological ideas, which are, it must be said, beyond all reason, unilateral disadvantages threaten to EU agriculture. After all, experience shows that EU law is executed meticulously or considered negligible, depending on the country. If, contrary to expectations, the Commission is able to assert itself throughout the EU, overseas farmers will be pleased about the partial abandonment of the EU position in world agricultural trade. Whether the EU farmers will be able to make their lives just from being world pioneers in sustainability, is highly doubtful, thinks Roland Sossna.

Columns:

A-ware extension project

Jorritsma Bouw's review

A few years ago, Jorritsma Bouw built a dairy plant for Royal A-ware and Fonterra at a prominent location along the A-7 highway in Heerenveen, Netherlands. The market for specialty cheeses and cream, however, expanded so rapidly that A-ware decided to gradually double the plant not long after. As engineering and construction partner Jorritsma Bouw was involved in this extension. The new Mozzarella and cream plant connects to the existing plant and a small, detached pre-processing area and extended the milk tanker delivery area was added.

Jorritsma Bouw boasts extensive experience as builder for the food industry, in which the dairy sector holds a special place. Maybe this has something to do with their HQ in Bolsward, where the Zuivelschool (dairy school) once was the home of the Frisian knowledge economy. In recent years, the company has perfected its expertise to meet all the dairy-specific strict requirements in the areas of hygiene and safety, logistics and finance.

Financially-driven designs

As engineering and construction partner Jorritsma Bouw not only took care of the construction of this extension, but also of the preparatory phases of the design and permit applications. As virtually the same team was deployed as when the first plant was built – as did A-ware – the thread was picked up smoothly. Supported by Het4Kant and Pieters Bouwtechniek, Jorritsma Bouw carried out the preparatory and operational tasks in close collaboration with A-ware specialists. Thoughts, knowledge and experience was exchanged at an early stage. This has led to more efficient designs and what's more, to a reduction in costs which made it possible to achieve the highest possible quality within the set budget. The concept of 'financially-driven design' is one of Jorritsma Bouw's specialities. Necessary ingredients here are: knowledge, trust and transparency.

Umbilical cord that connects A-ware's cheese plant with Fonterra's whey processing (photo: Jorritsma Bouw)

Flexible design and planning

As is the case in the construction world, the food industry is always evolving. That is why Jorritsma Bouw has put ifself at the service of the process installations and the corresponding specifications during the construction of the plant. A flexible design made it possible to incorporate the latest developments in pro-

A-ware's plant was recently extended (photo: Jorritsma Bouw)

Jorritsma Bouw has put ifself at the service of process installations and corresponding specifications during plant construction (photo: Jorritsma Bouw)

cess technology. It also involves another specialty: interface management. After all, it is only by aligning all interfaces properly that you can build a building like this in such a flexible way. Jorritsma Bouw was in close contact with client and suppliers, so freedom of choice for as long as possible could be offered while simultaneously realising all the important milestones in good time. Use was made of BIM and Systems Engineering. In this way, miscommunication was avoided and coherence between the requirements programme, the expectations and the execution was ensured. In order to keep everything on the right track, the project was divided into four construction flows where sections such as the milk tanker delivery area, pre-processing area and cheese dairy, where the assembly and commissioning of the process installations take the longest, were completed earlier than, for example, the dispatch department, where hardly any machines are needed.

Building without waste

A lean working method offers clients many advantages as Jorritsma Bouw organises its work processes in such a way that construction projects with as little waste as possible can be realised. This also means that the company and its co-makers carefully coordinate all construction activities and that planning consultations take place on a regular basis. By working according to Lean, all components – process installation, design, materialisation and construction system – fell into place. The project was even able to cope with the substantially increasing delivery times of building materials and any wintry, unworkable days.

Safety first

At the height of the construction of the new plant there were a lot of people on the construction site at the same time. This called for extensive safety measures, also because it was business as usual for the existing dairy plant. For this reason, Jorritsma Bouw's own on-site safety expert kept in close contact with the A-ware safety coordinator. In addition, site consultations ensured that the logistics of the existing A-ware plant were not hindered. A clever tool in this respect was 'De Bouwpas', which allowed subcontractors and workers to register online in advance if they wanted access to the construction site. Moreover, because there was an own entrance to the building site, the supply of building materials and the in- and outflow of dairy products did not get in each other's way.

Much more whey

Fonterra Manufacturing Europe increased capacities of the Heerenveen plant

To be able to process whey from the new Mozzarella production at A-ware in Heerenveen, the Netherlands, Fonterra's European plant that is located right beside the A-ware cheese factory had to increase capacities. With a € 10 Mio. investment, a new building was erected on top of the existing production which now houses a membrane filtration plant supplied by ALPMA/LTH.

IDM had the exclusive chance to visit the new premises. Fonterra and A-ware have been partnering in whey utilization since 2015 in the industrial estate of Heerenveen. Initially, this agreement covered whey from semi-hard cheese making. When A-ware decided to enter the growing Mozzarella market, large-style of manufacturing capacity, Fonterra simply had to pull right away to cope with a massive flow of new whey.

"We knew exactly the time when the additional whey would have to be processed and prepared accordingly," explains Diana Krabbe, General Manager Operations Fonterra Europe & Africa. "But the process itself was quite difficult as everything had to be done right in time and as we had to integrate the new capacities into the existing processing environment without interruption".

Suppliers presented individual solutions

Fonterra opened a tender for suppliers in which it thoroughly specified all requirements in detail. Participating suppliers had to present their individual turnkey solutions. Fonterra then decided on the basis of the quality of the proposed solutions and CAPEX aspects. The team that did the job of selection consisted out of specialists from a number of fields such as QA, processing, engineering etc. In the

The turnkey project supplied by ALPMA/LTH encompassed not only the RO plant, but also automation (for which long-term partner Beenen was subcontracted) and a CIP solution (photo: IDM)

Fonterra plant in Heerenveen, NL

Fonterra opened the plant in Heerenveen, the Netherlands, at the end of 2014. It was built in a whole-through-the-wall way to process all whey coming from the neighboring cheese factory operated by A-ware. The Fonterra plant processes only sweet whey from semi-hard cheese as well as Mozzarella whey. The portfolio is WPC 80, WPI and functional WPC's for infant formula, sports nutrition and medical applications. Most of the products are sold in dry form but Fonterra can supply their B2B customers also with whey concentrates of >28% dry matter. Since the start of the factory, Fonterra increases production capacity and product portfolio ongoing.

Products manufactured in Heerenveen are of superb quality. The whey arriving at the plant has passed a bactofuge for additional safety and will almost inline processed.

end, ALPMA/LTH's solution was chosen as best fitting to the processing requirements.

Thorough checks

This happened in December 2018. But then, things became tough for ALPMA/LTH. Fonterra has a habit of being involved in all development stages of equipment its sources on worldwide scale. This meant that ALPMA/LTH had first to produce the P&ID (Process and Instrumentation Diagram). Once this was agreed by Fonterra, everything had to be transferred into 3D drawings incl. all peripheral equipment such a tanks, fittings, valves and pumps. This draft was then reviewed by Fonterra again, with team members on aspects like HACCP, Hazard Analysis, Maintenance etc. stating their demands for adaptations and changes. "This is all quite time-consuming and tedious," admits Johan Hoeksma, Project Manager at Fonterra. "But an in-deep preparation of such complicated projects in a very strict process avoids mistakes in the end. We never assume that our counterparts might have understood what we mean or need, we make sure that there is real understanding, assumption are not allowed".

The final agreement took place in mid-February 2019 and ALPMA/LTH were told to start the at site installation in mid-September. At the same time, Fonterra had to arrange for space to house the new whey processing line. The solution proposed by Advies- & ingenieursbureau Het4kant was to build a new plant on top of the existing one. The 30x30 meter building on the rooftop was finished right in time when ALPMA/LTH sent the skid-mounted equipment in seven trucks. Everything had to be lifted by a crane into the new building for which purpose one of the side walls was left open. Of course, all trucks had to arrive in an orderly manner, everything exactly on time. As the project was prepared so precisely by Fonterra and ALPMA/LTH everything was right from the start which was confirmed by a FAT in August. The first Mozzarella whey was processed in November 2019.

The turnkey project supplied by ALPMA/LTH encompassed not only the RO plant, but also automation (for which long-term partner Beenen was subcontracted) and a CIP solution. Before Beenen came into the game, Fonterra made sure that their IT solutions were exactly fitting to their very structured and global proprietary automation concepts.

"The project was all a brownfield operation. Much more complicated than equipping a greenfield plant," is the resumé of Wietze Jongsma who is the representative of ALPMA/LTH in the Netherlands. He adds: "We had to do seven open heart surgeries when installing and integrating the new whey processing capacities into the running operation. And given the thorough preparation and the joint team spirit of Fonterra and ALPMA/LTH we succeeded in doing all this without causing havoc to the ongoing whey processing that was to be kept running and his high quality".

Johan Hoeksma comments from Fonterra's side: "ALPMA/LTH performed well above the regular level. They made things right first time, what isn't always the standard in projects. Overall, when taking into account waste water and utilities consumption, installation and quality of work, we are absolutely satisfied".

The solution

The heart of the Fonterra project is a new ALPMA RO HighTS plant with integrated RO-

The heart of the Fonterra project is a new ALPMA RO HighTS plant (photo: IDM)

Fonterra confirmed: ALPMA/LTH performed well above the regular level (photo: IDM)

Polisher, designed for two different modes of production: a feed flow from 6 % to 30 % total solids and a feed flow from 6 % to 9 % total solids Both in a capacity that meets the volumes of Mozzarella Whey.

Solids from the RO Polisher section are returned to the feed tank to prevent drain losses. The plant can be operated with a 20 % turn down in capacity related to the maximum. An automated citric acid dosing system reduces the pH of incoming whey based on measurement for automatic control of the pH.

The new RO plant supplied by ALPMA/LTH Dresden comprises additional equipment. A new manifold for Mozzarella whey with two filling lines has one emptying line to the new RO plant. Also the integration of the new tank storage was part of the design and implementation from Alpma.

Manifold valves were installed in the feed line to the UF plant to send RO concentrate with 9 % dry matter or to dose RO concentrate with 30 % solids for blending with low solid whey. The correct dosing is controlled by inline measurement.

New polished water storage and connections to existing manifold were installed. A line from the new RO plant for RO concentrate and cooling of the concentrate to 5 °C was integrated. Via this line it is possible to store the concentrate (30 %) or to bring the 9 % concentrate direct from the RO plant to the UF plant.

An additional circuit was introduced to the existing CIP plant. Delivery and installation of all necessary supply and return valves with same design as the existing valves was part of the package.

Fonterra uses Grundfos booster pumps, valves from GEA and the loop pumps from Alfa Laval. They all were arranged in way to ease maintenance. The RO-Polisher permeate is, after treatment, used for some phases of the CIP process.

The leaders in the team that managed the plant expansion (from left): Johan Hoeksma, Diana Krabbe and Mike Toplis, Fonterra, and Wietze Jongsma, ALPMA/LTH (photo: IDM)

The building

The Fonterra project from 2019 is an extension on the existing production plant, built in 2013, also engineered by Advies- & ingenieursbureau Het4kant b.v. When developing in 2012, Het4kant advised Fonterra to take future expansion into account. Especially to anticipate upon a load bearing roof, as there was little free space for high-care rooms next to the building. This provision now benefited the realization.

Issues during the process of engineering and realization of the expansion were, after all, that the factory was in constant operation for production; hygiene and existing constructions had to be maintained as they were. Not in the least because the plan was well developped from the start, and thanks to the various parties and consultation with the customer, the end result seems as if it has never been different.

Het4kant is a civil engineering company with 18 employees, including project managers, project leaders, building engineers, construction calculators and 3D-modellers. The professional scope includes all engineering activities from feasibility study up to support during construction. Het4kant do Greenfield as well as Brownfield projects, big and small. Among the clientele there are mainly dairy companies.

DuPont Danisco Chymostar is a new milk coagulating product (photo: DuPont)

Chymostar Cheese Coagulant
DuPont Nutrition & Biosciences

DuPont Nutrition & Biosciences announced the global launch of DuPont Danisco Chymostar, a new milk coagulating preparation for the dairy industry that offers optimal coagulation and ripening kinetics. Chymostar can be used for producing any type of cheese. It features a number of benefits, including ideal curd formation and firming speed. It enables fast flavor development due to its balanced proteolytic profile, thus helping mitigate the time and cost of maturation. Developed for a wide array of global consumers, it was important to DuPont that it be preservative-free, Kosher, halal-certified and suitable for use in vegetarian products. dupontnutritionandhealth.com

New ownership
Kalt Maschinenbau to keep growing

Investor CGS has acquired Swiss Kalt Maschinenbau (Kalt) from its current owners, the Winkler family. CGS will mold Kalt's business into a new industry group in the cheese-making technology sector, striving to sustain the growth seen over the past years. Ongoing internationalization shall expand existing markets while muscling up in new ones, broadening the product portfolio, and bolstering the service business.

Kalt is a leading international specialist in cheese, dairy, and process technology. Founded in 1962 and headquartered in Lütisburg in eastern Switzerland, the company develops and produces machines and systems for a broad customer base spanning the globe, ranging from traditional cheese dairies to industrial manufacturers. By focusing on technology, quality, and automation, Kalt has succeeded in recent years in streamlining its customers' cheese production while making it more hygienic and flexible, less prone to failure, and thus more cost-effective. kalt-ag.ch

Under new owenership Kalt is set to grow (photo: Kalt)

Elopak launches Pure-Pak Imagine

No need to imagine the most sustainable carton – it's here!

(photo: Elopak)

Elopak, a leading global supplier of carton packaging and filling equipment for liquid food, has launched the Pure-Pak Imagine, its most environmentally friendly carton to date. The new carton is a modern version of the company's original Pure-Pak carton, designed with an easy open feature.

"Increasingly, we see that our Pure-Pak carton system is the natural solution to the global need to reduce the usage of plastic bottles," says Elopak's Chief Marketing Officer (CMO) Patrick Verhelst.

Beverage cartons already have the lowest CO_2 footprint among liquid food packaging today.[1] Using renewable, recyclable and sustainably sourced materials, Elopak provides innovative packaging solutions that offer a natural and convenient alternative to plastic bottles and fit with a low carbon circular economy.

"With the launch of Pure-Pak Imagine, Elopak is supporting the critical causes that represent the issues of our times – but the call to action is timeless," Verhelst added.

Focus on sustainability

Elopak's strong focus on sustainability, alongside food safety and consumer convenience, has seen the company record a number of important environmental milestones in recent years. Carbon neutral since 2016, Elopak uses 100 per cent renewable electricity and has reduced emissions by 70 per cent over the past decade. With cartons manufactured from responsibly managed forests and FSC-certified material, Elopak offers customers 100 per cent renewable cartons that use wood-based renewable plastics, rather than relying on petroleum-based plastics.

"We wish to play our part in the global shift towards a low carbon circular economy and have therefore created the most environmentally friendly carton possible," Verhelst explains.

"The Pure-Pak Imagine carton has no plastic screw cap and is 100% forest based made with Natural Brown Board. The carton is fully renewable and carbon neutral, creating the perfect low carbon, circular economy approach," he continues.

Many will recognize the easy-to-open feature from the 70's and 80's before the screw cap was first introduced. The Pure-Pak Imagine carton's unique top fin helps guide consumers how to open the carton. In combination with the modern functionality of the easy-pour and easy-fold features, the new carton design sets a new benchmark in reducing plastics.

The Pure-Pak carton historically is the iconic fresh beverage pack, and with the new shape of the top fin introduced with the Pure-Pak Imagine, Elopak adds a further important point of differentiation. Shape is the first recognition point for consumers, so this is especially important in markets less familiar with the easy opening feature. The design of the Pure-Pak Imagine carton will create recognition on shelves across our markets and is applicable to all fresh categories.

"With Pure-Pak Imagine we aim to help consumers make conscious environmental choices. The carton's easy opening gives the environmentally-minded consumer a more sustainable pack, with less plastic and more natural renewable materials," concludes Verhelst. **elopak.com**

The Pure-Pak Imagine carton has no plastic screw cap and is 100% forest based made with Natural Brown Board (photo: Elopak)

Source:

[1] Lifecycle assessments comparing one litre packaging for fresh milk have shown cartons to be 83% more climate friendly that PET and 77% better than reusable glass (2015/16 study by IFEU Institut für Energie- und Umweltforschung Heidelberg GmbH, www.ifeu.de).

Ripening technology

Driving sustainable growth in the cheese industry

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Rising consumer demand for cheese is driving growth in the industry, with the market expanding at a rapid pace. A recent survey, for example, found that 85% of consumers globally questioned eat the same amount or more cheese than 12 months ago.[1] Global cheese production is, as a result, expected to reach 25 million tons annually in 2020, a 23% increase from 2012.[2] While this creates an opportunity for cheese manufacturers to increase turnover, inefficient and wasteful production processes raise sustainability concerns on an international scale. Consumers are also increasingly unwilling to compromise on indulgence, with cheese taste and texture remaining top priorities for people worldwide. The trend for products with 'clean label' or 'free-from' credentials continues to grow, too. Solutions that allow cheesemakers to overcome complex sustainability challenges and enable them to produce profitable goods in line with consumer preferences are therefore becoming highly sought after.


(photo: DSM)

The challenges ahead

The requirements cheesemakers must meet to not only cater to consumers' needs, but also work sustainably and economically efficient, evolve constantly. Monitoring the market landscape closely is therefore essential to stay competitive. The top priorities for industry players in the cheese industry include:

1. Food waste

According to the European Commission for food, farming and fisheries, food waste is not only an ethical and economic issue, but it also depletes the environment's limited natural resources. Across the cheese industry, food waste is an increasingly prominent issue as sustainability concerns continue to rise. It is, for instance, estimated that Gouda and Parmesan manufacturers lose 3 to 10% of cheese produced annually – approximately 220,000 tons – due to wasteful slicing and cutting, grating and shredding procedures.[3]

There are a number of factors that can contribute to cheese waste; cutting loss, however, is the main consideration for naturally ripened cheeses like Parmesan and Gouda. Cutting loss is predominantly caused by spoilage through mold and the removal of the cheese rind. Typically, there are two reasons for removing the cheese rind. During the ripening process, cheese is often treated with Polyvinyl alcohol (PVA) coatings to avoid mold growth, which are non-edible and must be removed to uphold food safety standards. In addition, moisture evaporation can cause the development of a thick, dry rind during ripening that cannot be consumed. In both cases, the rind must be removed before further processing to guarantee consumer acceptance, creating additional cheese waste. Cutting loss therefore puts ever-increasing pressure on cheesemakers to find solutions that allow them to ripen cheese effectively and sustainably, and thereby reduce their contribution to the food waste burden.

To develop great tasting cheese products with an appealing texture that also meet clean label product claims, cheesemakers must find solutions that enable them to age cheese naturally and effectively without applying artificial or chemical additives and ingredients (photo: DSM)

2. Efficiency and yield

In addition, the volatility of milk prices affects producers' bottom line worldwide, with many looking to find ways to optimize the use of raw materials to achieve maximum productivity and prepare for price spikes. For example, raw milk prices in Europe peaked in 2007 – jumping from 27 to 38 EUR/100 kg of milk in six months, while prices reached an all-time low in 2008/2009 – dropping from 35 to 25 EUR/100 kg of milk in nine months.[4] It is this unpredictability – which has only intensified since the end of dairy quotas in Europe in 2015 – that raises concerns among cheesemakers, with many looking to take measures to optimize their production processes to do more with less.

3. Evolving consumer preferences

Meanwhile, creating on-trend products is essential for cheese producers to stand out in a crowded market place and maintain market share. Taste and texture, for instance, are key influencers of the consumer purchasing decision. Demand for mature cheese with an authentic taste and texture profile is booming worldwide. The clean label movement is also trending, with consumers proactively looking for more natural products with short, easily recognizable ingredients lists. For example, consumer research by FMCG Gurus found that 23% of Germans and 25% of Brazilians reported finding natural hard cheese appealing, while 29% and 12% respectively said they consider a chemical-free product claim important.

To develop great tasting cheese products with an appealing texture that also meet clean label product claims, cheesemakers must find solutions that enable them to age cheese naturally and effectively without applying artificial or chemical additives and ingredients. Most semi-hard and hard cheeses, such as Parmesan and Gouda, are traditionally ripened by air-drying, in which chemical cleaning agents or PVA coatings containing preservatives are applied to protect the product's surface from spoilage. These ingredients are facing increased scrutiny from today's consumers, meaning that moving away from chemicals and preservatives and towards alternative ripening solutions is crucial to create a strong appeal for consumers.

The question now is, how can producers meet these requirements – from combating food waste and increasing productivity to creating cleaner labels, without compromising on taste or the consumer experience?

Next generation solutions

Recent advances in cheese ripening technology mean that manufacturers can now pack and age cheese naturally, effectively and efficiently, without affecting quality, taste or texture. DSM's Pack-Age solution offers a unique breathable, moisture-permeable membrane technology. This membrane solution helps to prevent mold growth during cheese ripening and reduces the wasteful crust removal process, as no coatings are applied and the moisture reduction will develop more homogeneous throughout the cheese, avoiding the development of a thick, dry rind. Ultimately, this can help to reduce the amount of cheese lost or wasted every year. A preservative-free solution, it also supports cheesemakers in creating great taste profiles and meet the clean label standards expected by today's discerning consumers.

A ready-to-use membrane that can be implemented with existing vacuum systems, Pack-Age enables a manual to fully automatic operation – streamlining the ripening process and thereby increasing efficiency. By implementing this ripening technology, cheesemakers can increase the yield of cheese

Latest cheese ripening technology can support cheesemakers in overcoming challenges like reducing food waste and increasing efficiency (photo: DSM)

production and control moisture losses. Combined with a reduction in cutting loss waste, this can allow cheesemakers to produce more yield from the same amount of milk. Indeed, research suggests that if all Gouda and Parmesan cheeses globally were ripened using Pack-Age, 200,000 tons of cheese waste could be avoided every year – reducing milk use by 3.55 billion liters and CO_2 emissions by 6.2 million tons annually.[5]

Partnering for success

As sustainability concerns in cheese production take center stage globally, the importance of reducing food waste and increasing efficiency to do more with less will continue to rise. The latest cheese ripening technology can support cheesemakers in overcoming these challenges, while also enabling the production of high-quality, on-trend products with clean labels and a great taste and texture to stay ahead of the curve.

The right partner can help cheese producers implement ripening technology successfully, optimizing processes to prevent operational downtime, especially when using existing vacuum equipment. Once fully integrated, an expert partner can support manufacturers in tracking progress in terms of productivity and sustainability, allowing manufacturers to achieve the desired results, drive innovation and stay at the forefront of the industry. From sustainability to consumer trends, DSM's Pack-Age cheese ripening technology offers an effective approach to tackle the complex challenges faced by cheesemakers globally.

With decades of experience and in-depth technical and scientific know-how, DSM is well placed to help producers create a more sustainable and economically efficient cheese industry. DSM also partners with its customers to anticipate their needs and help them select the right solutions that will enable them to develop high-quality, great tasting cheese products that consumers will enjoy.

Sources:

[1] DSM study carried out by FMCG Gurus [pre-defined multi client research in Australia, Brazil, China, France, Portugal and the US], Q3 2017 to Q4 2018

[2] PM Food & Dairy Consulting, 2016, World Cheese Market 2000-2023 [report]

[3] Denkstatt report, Sustainable thinking, Version 2.0, 2015 (produced for DSM as part of a LCA analysis)

[4] European Commission, Managing risk in the dairy sector: how futures markets could help, https://ec.europa.eu/agriculture/sites/agriculture/files/markets-and-prices/market-briefs/pdf/11_en.pdf

[5] Denkstatt report, Sustainable thinking, Version 2.0, 2015 (produced for DSM as part of a LCA analysis)

Safe workplaces

Siemens and Salesforce partner

Salesforce and Siemens jointly are developing a new workplace technology suite that will support businesses globally to safely reopen and deliver the future experience for physical workplaces. The partnership will combine Salesforce's Work.com, powered by Customer 360, and Siemens' Smart Infrastructure solutions, including Comfy and Enlighted, to orchestrate the processes, people and things that are essential to creating safe, connected workplaces for the future.

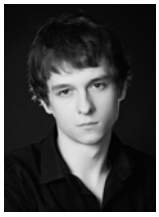
Key solutions include a 'touchless office' with mobile employee boarding passes for building and elevator entry, and a safe occupancy management system, which allows employees to reserve conference rooms and desks through Comfy's app that sends real-time alerts as thresholds are reached.

Salesforce and Siemens make workplaces safer (photo: Siemens)

Additionally, by leveraging occupancy and location data provided by Enlighted and aggregated within Comfy, including employee check-in and desk and room reservations, businesses will be able to augment their manual contact tracing in Work.com. This will allow for a faster and more accurate emergency response. Contact tracing will be an opt-in solution to respect users' privacy.

Benefitting from the chaos

Pandemic fallout is not a concern for Russia



Author: Vladislav Vorotnikov, Moscow

During the first weeks of May Russia overtook the European countries to become number two in the world for Covid-19 cases, but for business the things may be not as bad as they seem. Rather soft quarantine measures introduced in Russia as well as in neighboring Belarus to slow down the spread of Covid-19 epidemic could make local dairy business even more successful on the global market than before.

During the past few years Russia was putting a lot of efforts in order to promote its products overseas. In the first two months of 2020, Russia exported 114,000 tons of dairy products, 22% up as compared to the same period of the previous year, the Federal Customs Service estimated.

In 2020, it is projected that the Russian dairy export could grow by 20% to the last year's level, according to Artem Belov, general director of the Russian Union of Dairy Producers Soyuzmoloko. Russian government agencies are currently in negotiations to get a green light to export dairy products to the countries of the Middle East, South-East Asia and Northern Africa. By 2025, the Russian dairy export could grow by a factor of up to 3 times to $800 million or $900 million, Belov said.

Russia is set to take advantage from the coronavirus pandemic

Weak ruble gives it all a push

The weakening of the Russian ruble against the U.S. dollar could give a new boost to the import-replacement campaign on the domestic milk market, a research conducted by the Russian state-owned bank Rosselhozbank showed. Several dozens of milk farms with the overall production capacity of around 3 million tons of milk per year could be built in Russia thanks to the currency fluctuations on some extent caused by Covid-19, Rosselhozbank said.

Some parts of the Russian food industry are also likely to get a powerful impetus to expand export supplies, Rosselhozbank added.

According to Daria Snitko, director of the forecasting department of another Russian state-owned bank, Gazprombank, Russia is in the perfect position to boost food export these days. It is hard to imagine that because of the pandemic people would consume less food, but the global trade turnover has plummeted and the countries which currencies were affected, like Russia or Brazil, are rushing to boost their export supplies, Snitko said.

Besides, the harsh economy environment promises to push people around the world towards less expensive food,

and this should be good for Russia, which is exporting primarily low-price dairy products and raw materials, Snitko explained.

There is a handicap between the Russian dairy companies and their competitors in the European Union and U.S. whose operations were disrupted by the coronavirus. Stefan Duerr, CEO of the Russian dairy company EkoNiva, stressed that not all countries have the same situation as in Russia, where most companies continue operation in spite of the epidemic and there are high chances that this could aid the company's export.

There is no information that the operation of even a single dairy company in Russia has been disturbed by the coronavirus. To combat Covid-19, Russian President Vladimir Putin introduced a nationwide holiday month effective March 28. A significant portion of companies was ordered to shut down their operation, but the entire food industry was allowed to continue working as usual, while adhering to strict sanitary measures.

Billions keep flowing

Covid-19 is not going to hamper the investment potential of the Russian companies as well. In 2019, investors pumped Rub91.6 billion ($1.4 billion) into various projects in the dairy industry, the Russian Agricultural Ministry estimated. In 2020, this figure is expected to be even higher.

A research conducted by the Moscow-based think tank MilkNews showed that building of new milk farms and dairy plants

Russia government approves additional state aid to milk farmers

so far has not been negatively affected with the quarantine measures.

All projects launched before the epidemic are running fully in accordance with their schedules, said Leonid Besmertnyukh, marketing director of DeLaval in Russia. There are certain difficulties with new projects, which are only under consideration, since the devaluation of the Russian ruble increased investments costs on new builds, while in terms of profitability their future is not fully clear. And yet there are examples when the negotiations on the new projects between technology providers and investors continue and some win-win solutions are found, Besmertnyukh added.

Most companies are simply not hurrying up with their investment plans, but there is absolutely nothing unusual about that, commented Pavel Zhadobin, manager of GEA. Clients usually spend years to get funding for their projects and some additional time to get subsidies, so, 1.5 months of quarantine are not likely to change things dramatically in this field, Zhadobin added.

According to Artem Belov, the Russian dairy industry is attracting not only Russian, but also foreign investors. For example, the German DMK Deutsches Milchkontor GmbH harbors some investment plans as well as French company Savencia is on the way to launch cheese production in the Republic of Bashkiria. There are also some projects harbored by Chinese investors on the Russian Far East.

For the foreign investors establishing export supplies is among the rationales to invest in the Russian dairy industry, Belov said.

There are certain indications that the investment potential of the industry may even improve with the Covid-19 epidemic. During the government meeting on May 15, the Russian Agricultural Ministry preliminary approved some additional state support measures for the dairy companies.

In particular, Oksana Lut, deputy Russian Agricultural Minister promised to expand program of soft loans dairy business could seek in the state-owned banks, plus to consider abolishing import tariffs on feed, breeding stock, drugs and equipment. Soyuzmoloko is also asking the government to subsidize costs of electricity and increase subsidies on capital costs under new projects.

More importantly, the government agreed to postpone the introduction of

Russia is going to increase milk production by 3 million tonnes

Dairy products consumption is not going to go down in Russia, despite Corona

compulsory tagging of dairy products on the Russian market. According to Belov, this measure would incur the Russian dairy industry additional costs of Rub35 billion ($500 million) per year, and now the industry got a time-out to gather some additional arguments to convince the authorities to abandon this project for good.

Neighbors remain positive

It is clear that there was no negative impact of the Covid-19 on the dairy industry in Belarus. The country's President took an unusual stance on the pandemic saying the disease was not worth worrying about. Speaking at a press-conference in April, Lukashenko said nobody was dying or would die from the coronavirus, adding that "the country's medical workers have already found a cocktail of medications to cure the disease".

For this reason, Belarus has not introduced a nationwide quarantine and remained the only one country in Europe not suspending football plays. Needless to say, the country's dairy plants continued operating without any changes.

Belarus annually exports dairy products of around $2.15 billion per year, Belarus Agricultural and Food Ministry estimated. The production capacities in the country are nearly three times exceeding the domestic demand, with the per capita production of 730 kg is believed to be one of the highest in the world.

Belarus may boost supplies to the countries experiencing a shortage of food products because of the Covid-19 pandemic, Ivan Krupko, Belarus Agricultural Minister said. Belarus has a strong potential in agricultural area, he said, adding that in the first quarter of 2020 the country increased milk production by 5.6% as compared to the same period of the previous year.

So far the Covid-19 pandemic has not affected Belarus export program in 2020, the Ministry of External Affairs said in a statement on its website. The country's food export added $120 million during the first quarter of 2020 with the biggest contribution to this dynamic has been provided by the dairy and meat industries, the Ministry reported.

In general, business is optimistic about the prospects of export in 2020, the Ministry added.

Dairy industry also maintains careful optimism in Ukraine. The companies have experienced a slump in profitability because of the decreased demand for dairy products of HoReCa segment, but the profits are still high enough. Some concerns are only raised over the competition with the cheap European products in the second half of the year.

The purchasing price of milk in the European Union would not exceed €0.25 per liter in the coming months, and this is significantly lower as compared to the purchasing price in Ukraine, said Alex Lisitsa, president of the Ukraine Club of Agrarian Business. Ukraine dairy companies must be braced for difficult times because of the substantial competition with the European companies who would come up with their products, in the first place – cheese and butter.

This would push down purchasing prices and cause certain losses in the industry, Lisitsa warned, suggesting that the government should think of some measures to support the country's dairy industry.

Full-scale engineering capabilities

Tetra Pak's cheese production centre in Poland

With a €25m investment Tetra Pak has opened a what they call world-class cheese production centre in Poland. IDM asked Fred Griemsmann, Vice President, Business Unit Cheese & Powder Systems Tetra Pak, about reasons and the implications.

IDM: Why did Tetra Pak choose Poland for the location for the new centre – is it because of cheaper labour costs?

Griemsmann: The reason for choosing Olsztyn as the new site location is that it sits in a region with a great history in dairy production and is home to many of our Polish customers. The reason for choosing the site was not down to the cost of labour, but rather the dairy expertise held by those working and studying in the region – which includes top-class welders and highly qualified engineers. At the same time, the location close to educational institutions such as the University of Warmia and Mazury, and we are enthusiastic to investigate how we can work with these institutions to increase our industry knowledge and the service we can offer customers in Poland and wider Europe.

The new site is not just a production plant. Here we have all competencies needed for our cheese business. It enables us to create and deliver full cheeses solutions for our customers. It's an addition to the sites we have in the NL, the UK and the US so now we are even better positioned to provide complete semi-hard cheese, fresh cheese, cheddar, mozzarella and other processed cheese solutions.

IDM: What are the targets and tasks of the centre?

Griemsmann: We aim to help our customers grow their cheese business with faster and improved production.

With the location of the centre strategically chosen, it's well placed to help improve the efficiency of fulfilling the orders for our customers across Europe.

Building on Tetra Pak's global expertise in semi-hard and fresh cheese, the site will offer full-scale cheese equipment engineering, from cheese-making process design, mechanical engineering, automation, and electrical engineering to production engineering.

Tetra Pak's new cheese production centre in Olsztyn, Poland (photo: Tetra Pak)

All our machines and lines are equipped with advanced and efficient control systems allowing customers to optimise the cheese-making process, collect and analyse production data. We are using the latest software and hardware to enable easy integration of our automation systems into factory controls.

IDM: Will other production sites be closed in the wake of the newly built centre; will Tetra Pak workers be relocated to Poland from other countries?

Griesmann: There are no plans to close our other production sites. The ambition is to grow the business and expand the offering to our customers. As a customer centric company, we are constantly evaluating the global market demand in relation to our capabilities and adjusting at our production

The greenfield site offered the opportunity to construct a state-of-the-art facility with an optimised workflow (photo: Tetra Pak)

Fred Griemsmann, VP Business Unit Cheese & Powder Systems Tetra Pak: Our new site will offer full-scale cheese equipment engineering (photo: Tetra Pak)

sites accordingly. On this basis we are always encouraging our employees to broaden their work experience and skills by offering different types of personal development opportunities which can include job rotation to different locations.

IDM: What are the benefit customers have from the new facility?

Griemsmann: Customers will benefit from the new site not just focusing on production, but having full-scale engineering capabilities, from cheese-making process design to mechanical, automation and electrical engineering through to manufacturing and starting up processing solutions. Customers can also expect to see the significant improvement in the efficiency and fulfilment of their orders.

In addition, the greenfield site offers great opportunities to construct a state-of-the-art facility with an optimised workflow between the different production areas which is further enhanced by the world class manufacturing work that takes place.

IDM: Does the new location mean that Tetra Pak is moving away from Europe and addressing new market territories?

Griemsmann: No, the new site is still within Europe, and has been strategically located to support the positive growth of our cheese business. The global cheese market has witnessed continued demand and is set to proliferate at a CAGR of 2.3%, reaching 31,000 kilotons by 2023, according to Tetra Pak's market insights. In 2018, fresh (30%) and semi-hard cheese (24%) were the biggest drivers in the produced cheese category.

The new centre is situated close to the new highway between Gdansk and Warsaw and the Olsztyn ring road, which significantly improves the efficiency of order deliveries – not only to customers in Poland but also those in wider Europe.

Delivering global dairy sustainability

Author: Dr María Sánchez Mainar, DMV, PhD,
IDF Science and Standards Programme Manager

Finding new ways to reduce impact on environment, manage resources efficiently and increase benefits to biodiversity and bioeconomy is a crucial part of the long-term commitment made by the dairy sector for continuous improvement.

Launched in June 2020, the 3rd edition of IDF's Dairy Sustainability Outlook is the latest contribution by the International Dairy Federation (IDF) to share sustainability best practice within the sector.

Featuring contributions from 18 countries around the world, the report showcases ongoing activities and the latest initiatives to ensure sustainable dairy, including new approaches to agriculture, quality education, improved milk quality, development of rural areas through dairying, strong international cooperation and climate commitment achievements.

These include sustainability knowledge transfer between Denmark and China; how the Milky Way Partnership is helping deliver on the UN's sustainable development goals; how Israeli dairy experts are transforming the dairy sector in the Atlántico Departmental region in Colombia.

A case study in India shows how the establishment of an efficient manure value chain can provide fuel needs and provide a stable income for dairy farmers. In Brazil, anaerobic bio-digestion of livestock manure is shown to produce clean energy and reduce soil and water contamination, while in Sweden, the report looks at largest single undertaking to reduce losses of nutrients to air and water from livestock and crop production.

The report shows how the Belgian retail trade with the support of the Belgian government are helping Belgian consumers move towards an even healthier lifestyle, with the development of dairy products with very little or no added sugar. Another example looks at how the Russian dairy sector is making rural areas a truly attractive place to live for young families, supporting the demand for skilled dairy industry workers through the local population.

Different practical solutions for the sector to meet the environmental challenges of reducing greenhouse gas and ammonia emissions, increasing carbon capture, improving water quality, while protecting and improving biodiversity are showcased, along with how Ireland is continuing its reduction in the already low emissions intensity of dairy production, which can be assessed by their carbon navigator tool. Additionally, seven case studies inspire the reader with different practical solutions for the sector to meet the environmental challenges.

The 3rd edition also provides an example of how COVID-19 has impacted dairy and outlines the measures taken in France to maintain the activity of the sector.

Scientific editor of the report Dr María Sánchez Mainar, DMV, PhD:

"Sustainable development is a collective effort that depends on collaboration between governments, international organizations, and the private sectors, along with individuals. The 3rd edition of IDF's Dairy Sustainability is a valuable continuation of the series and provides an insight into the contribution of milk production, processing, and consumption to the achievement of UN Sustainable Development Goals."

Dairy Sustainability Outlook edition 3 is free to all and can be downloaded from the IDF website.

Sunfiber classified as natural ingredient

Taiyo

According to the International Organization for Standardization technical specification, ISO 19657:2017, Taiyo's Sunfiber dietary fiber is a 100% natural ingredient. This is good news for food manufacturers. Not only can they simplify the certification process for their own products, they can also use the "natural dietary fiber" claim on their product labels.

Backed by science, Sunfiber is clinically proven to lower the glycemic index, contributing to stabilized blood glucose levels. For this reason, Sunfiber has achieved a Health Claim for lowering after-meal blood glucose levels by 20% from the Canadian health authorities. taiyogmbh.com

Sunfiber acts as a probiotic in the gastrointestinal tract and helps to slow down and reduce the absorption of fat, cholesterol and sugar. It was now classified by ISO as "natural ingredient" (photo: Shutterstock/Vinod K Pillai)

Japan expansion

Sacco System

Sacco System, the convergence of international biotech excellence applied to the food, nutraceutical, and pharmaceutical industry brings its decades of experience to Japan with the opening of the subsidiary, SACCO SYSTEM JAPAN.

SACCO SYSTEM JAPAN was founded in May 2020 and has the focus of developing a tailored, profitable, and high growth dairy and probiotic business in the Japanese markets. SACCO SYSTEM JAPAN is based in Tokyo and will offer a large range of innovative products and technical service in promoting dairy cultures, cheese coagulants, and nutritional supplements (probiotic cultures).

To further strengthen its presence in Japan, SACCO SYSTEM has appointed Ms Nanako Oikawa as CEO. Oikawa has extensive experience in big Japanese and Multinational Trading Companies. saccosystem.com

Vitafoods 2020

September – online event

Everything about ‚plant-based', and much more …

Vitafoods Europe is an annual event where the global nutraceutical supply chain comes together to do business. Here, the global food industry can find leading suppliers of dietary supplements, functional food and beverages as well as high quality service and equipment providers from across the industry's key sectors. This time, the show will give special attention to the growing market for plant-based foods – however, this time as reaction to the pandemic only as an online event.

Vegan cheese market to grow

The expansion of the plant-based food industry will support the growth of the vegan cheese market. With the demand for plant-based alternative rising, the market is likely to report impressive growth, according to a report on Vegan Cheese Market published by Future Market Insights.

The global vegan cheese market size was valued at $2.1 million in 2019, and is forecast to grow at a CAGR of 8.6% between 2019 and 2028. Rising disposable income of consumers, coupled with their willingness to spend on premium products, are driving the market and creating new commercial opportunities for dairy alternative businesses.

On the basis of source, the almond milk segment is forecast to witness highest growth. Leading players are focusing on expanding their geographic presence, besides launching novel products to gain competitive advantage. In addition to these, several companies are offering cost-effective products to woo their consumers.

To support the trend, there is a worldwide rising number of hotels, restaurants, and cafes have started introducing vegan cheese in their menu to attract consumers who prefer vegan diets and those who are lactose intolerant.

Consumers' purchases

In the last couple of years, consumers' willingness to spend on exotic and humane plant-based diet has greatly increased. In addition to this, a stable increase in the demand for novel food alternatives is noticed. They are motivated by various advertisements and campaigns to obtain essential nutrients from plant-based alternatives, and this decision is supported to an extent by their increasing disposable income.

Some of the leading players operating in the vegan cheese market are Daiya Foods, Follow Your Heart, Go Veggie, Parmela Creamery, Kinda Co., Bute Island Foods, Vtopian Artisan Cheeses, Kite Hill, Miyoko's Kitchen, Vermont Farmstead, and Good Planet Foods.

Sustainability

Vitafoods will, of course, also focus on sustainability. The new "Sustainability Corner" is an interactive zone where online visitors can learn more about sustainability within the nutraceutical industry and beyond.

In light of climate change, consumers are demanding transparency across the whole supply chain; environmentally and socially responsible practices around food sourcing and production; and increasingly, more plant-based choices and circular packaging.

These and other trends are driving the standards across all sectors and sustainability has become nonnegotiable. Learn more at **vitafoods.com**.

Omya: Optimum calcium supply at any age

At Vitafoods Europe, mineral ingredients manufacturer and specialty distributor Omya will launch Omyaforte, a highly bioavailable source of calcium suitable for

Omya will present Calcipur 115-KP and 95-KP, two grades of natural calcium carbonate for infant formula, at the show (photo: Pavel Ilyukhin, shutterstock)

powdered and compressed formulations that target the increasingly ageing global population. In addition, the company will showcase its solutions for calcium-rich infant nutrition and its directly compressible calcium carbonate range, Calcipur DC. Matching vitamins from the distribution portfolio complete the company's offerings.

Rousselot: The new face of Peptan

Rousselot, a leader of collagen-based solutions, announced the revamp of peptan.com as a multilingual website on everything about collagen peptides. Being the first collagen supplier to launch such a content hub, Rousselot aims to target the increasing number of people looking for reliable information on collagen peptides. Providing an overview of the naturally-sourced ingredient, its multiple health benefits as well as market and scientific insights, this content-rich, visually-appealing website will support Rousselot's goal to provide trusted and transparent information on its key bioactive ingredient Peptan.

Pharmactive Biotech Products is to launch a new garlic extract

Pharmactive Biotech Products: No more sleepless nights

Pharmactive Biotech Products S.L. will introduce ABG10+, its next-gen organic aged black garlic extract for both the functional food applications. The extract is obtained from fresh garlic that has been aged in a unique process that alters the physiochemical properties of garlic. In a new pilot study, ABG10+ demonstrated superior antioxidant capacity in comparison to other aged garlic extracts currently on the market. The ingredient contains no additives or preservatives and does not undergo any form of burning, caramelization, or high-heat treatment.

DolCas Biotech: Curcugen

DolCas Biotech, LLC, will exhibit Curcugen, a whole turmeric-synergized active ingredient in a food-based dispersible matrix supported by full safety, efficacy and bioavailability data.

Curcugen uniquely showcases the best of many individually studied active turmeric compounds, chiefly 50% curcuminoids and 1.5% turmeric essential oils, plus complementary functional turmeric resins and other bioactive native molecules.

Curcuge is a whole turmeric-synergized active ingredient (photo: DolCas Biotech)

Minebea Intec

Support in maintaining the supply chain

The outbreak of the coronavirus is restricting our world. The pandemic is causing supply bottlenecks worldwide due to increased demands for goods, limited production capacities and local import and export restrictions. Like any other company, producers of food, beverages or pharmaceuticals must face the COVID-19 risk. At the same time, they play an important role in supplying the population with essential goods. The global manufacturer of industrial weighing and inspection technologies, Minebea Intec, is aware of the urgency of an uninterrupted supply chain and offers its customers exceptional support and special measures as immediate counteractions against the coronavirus.

In times of crisis, the supply of the population with essential goods is a highly sensitive issue. This is among other things shown by the countless worldwide reports of hoarding purchases in recent weeks. To maintain the supply chains is therefore all the more important in this period. According to Minebea Intec, this includes above all secure operations in mass production for vital goods. "Many of our customers come from the who's who of the major global manufacturers. At the same time, we are supplying small and medium-size companies that produce vital goods for the daily demand of end consumers. If production comes to a standstill here, the basic supply is quickly endangered. We at Minebea Intec see our mission at this moment particularly as providing producers with solutions that secure their operations," explains Willy-Sebastian Metzger, Director Marketing, Strategy and Business Development at Minebea Intec. "A good example is our remote service tool miRemote, which can help companies that have imposed access barriers for external parties. The tool uses Augmented Reality and works intuitively via smartphone or tablet. It offers comprehensive service without the risk of infection. User and technician are able to work as if they were sitting next to each other. In this way, the Minebea Intec service technician can provide first aid, analyse the situation and directly order the spare part to save time." However, miRemote is only one of many products and solutions that the company uses to keep its customers' backs free in these extremely challenging times.

Empty supermarket shelves lead to uncertainty among the population worldwide (photo: Wesley Tingey on Unsplash)

All over the world premium Minebea Intec weighing and inspection technologies like the weighing module Novego support producers with reliable measuring results (photo: Minebea Intec)

Immunising production processes

Minebea Intec products and solutions are already contributing to safe and efficient production processes. The company provides an agile product portfolio consisting of high-resolution platform scales, load cells, vessel and silo scales, checkweighers, metal detectors, X-ray inspection systems and in-

The remote service tool miRemote uses Augmented Reality and works intuitively via smartphone or tablet (photo: Minebea Intec)

tuitive software solutions. "Basically all goods get weighed and inspected at some point during production. Our premium weighing and inspection technologies ensure precise measurement results along the production line," explains Frank Wieland, CSO at Minebea Intec. "To secure these operations even more, we now guarantee our customers total service and spare parts availability under any circumstance." In the next weeks, the company is also going to offer its customers long-term access to miRemote, so they can use the tool at any occasion: in case of access restrictions for external parties, when rapid on-site support is required or to speed up clarification and spare parts ordering.

Minebea Intec also pays special attention to existing and future projects. "Fortunately, we are able to complete all current projects without delay," explains Frank Wieland. "For new projects or conditions changed by the current situation, we are ready and equipped. In addition, we decided to lend our assistance during the corona crisis by offering special prices and conditions." And miRemote helps here too: by using Augmented Reality, project details can be discussed online.

In view of the many trade fairs that had to be cancelled due to the COVID-19 threat, the company with headquarters in Hamburg, Germany, is presently creating another helpful highlight: "We are currently building our showrooms, which are spread all over the world, into virtual exhibition theme stands. In this way, customers can explicitly arrange 1:1 appointments with sales and application specialists and have the devices demonstrated live and in person to them, while independent from the corona developments, in a virtual and safe setting. And there will be more to come from our side to support our customers throughout this crisis," says Frank Wieland.

"Farm to Fork Strategy" & "European Green Deal"

A coherent dairy approach

Author: Alexander Anton, EDA Secretary General

The European Commission went public in December 2019 with its "European Green Deal" – the overarching political guideline for Europe to become the first climate neutral continent by 2050.

With a two months delay because of the covid crisis, In May 2020, the European Commission released its "Farm to Fork" Strategy that is meant to translate the overall climate and environmental ambition for the agri-food sector.

"A fair, healthy and environmentally friendly food system" as the subtitle of the Farm to Fork (F2F) strategy reads.

Launched as part of the Green Deal package, the strategy claims to aim at 'strengthening the sustainability of the food sector, covering all the stages of the food chain and ensuring that all actors actively contribute to the transition'.

The strategy encompasses key subjects for the food systems such as healthy and sustainable diets, consumer information, promotion programmes for agricultural products and food in schools, a push for more organic production area, pesticides and fertilisers use restrictions and reduction of food waste.

"We believe European dairy farming is part of the solution and we are committed to speeding up the transition to sustainable dairy," underlined Peder Tuborgh, the CEO of Arla Foods.

This commitment is shared by the European dairy industry - we fully subscribe to the overall ambition of the Green Deal and the Farm to Fork strategy.

And we did not wait for the European Commission to come up with their strategy: at global level, not least within the Dairy Sustainability Framework (DSF) and at European level, for instance with our Dairy Product Environmental Footprint (Dairy-PEF) project, we are already in the implementation phase.

F2F – a new boost for dairy sustainability?

The F2F strategy was officially presented by the n° 2 of our 'European government', Mr Frans Timmermans with his impressive title "Executive Vice President of the European Commission for the European Green Deal and Climate Action", and Stella Kiriakides, EU Commissioner for Health and Food Safety.

The absence of the EU Commissioner for Agriculture Janusz Wojciechowski at the launch of the F2F strategy was heavily criticised.

What is much worse, is the absence of a coherent agricultural approach within the strategy, that includes an 'action plan' with 27 legislative actions for the time 2020 – 2024.

The F2F paper is characterized by its incompleteness, its competing objectives and incoherent proposals.

Yes, we are deceived: this is not the one and coherent strategy for the whole agri-food sector that will boost dairy sustainability.

The transition towards a European sustainable dairy & food system is needed now more than ever and the dairy sector will play a key role in this transformation. Sustainable dairy livestock production will allow EU consumers to benefit from healthy and nutritious products, while at the same time reducing the negative impacts on the environment and climate. We are also committed to continue providing nutritious, safe, and affordable products to the European and world market.

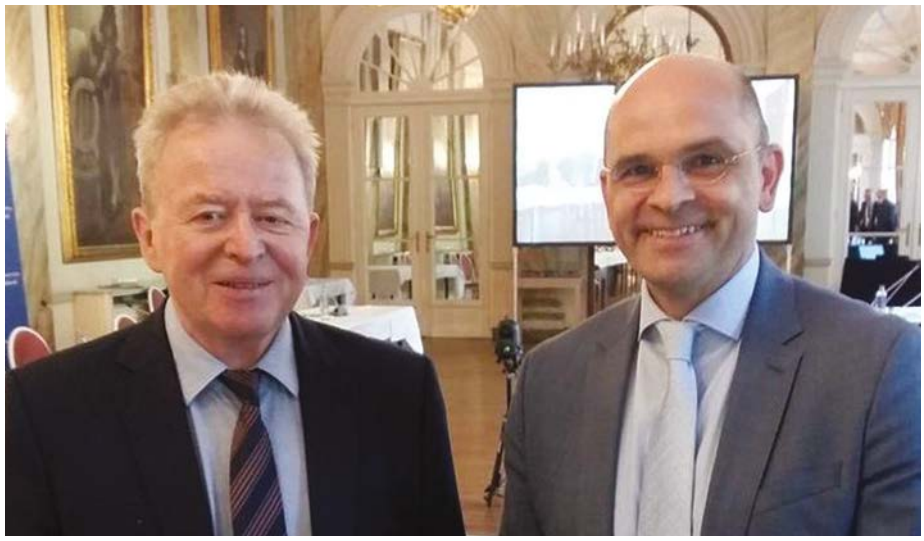
The European Commission wants to achieve the objective to shift towards 'healthier and more sustainable diets' by 'simple' measures such as setting up nutrient profiles to restrict the promotion of foods high in fat, sugar and salt and proposing harmonised mandatory front-of-pack nutrition labelling to 'enable consumers to make health conscious food choices'. The nutritional value of milk & dairy cannot be reflected in these simplistic schemes.

Mandatory origin labelling for certain products will also be proposed as part of the Farm to Fork strategy. The European dairy industry is convinced that very strict rules for voluntary origin labelling are the only way to meet the information expectations of quite some consumers and to guarantee at the same time the functioning of the Single Market.

If you know, that Frans Timmermans, the 'European Green Deal leader' blames modern agriculture for the covid19 pandemic and that he claims that 'large intensive farm operations supply poor quality food', the direction becomes very clear.

"European Green Dairy Deal"

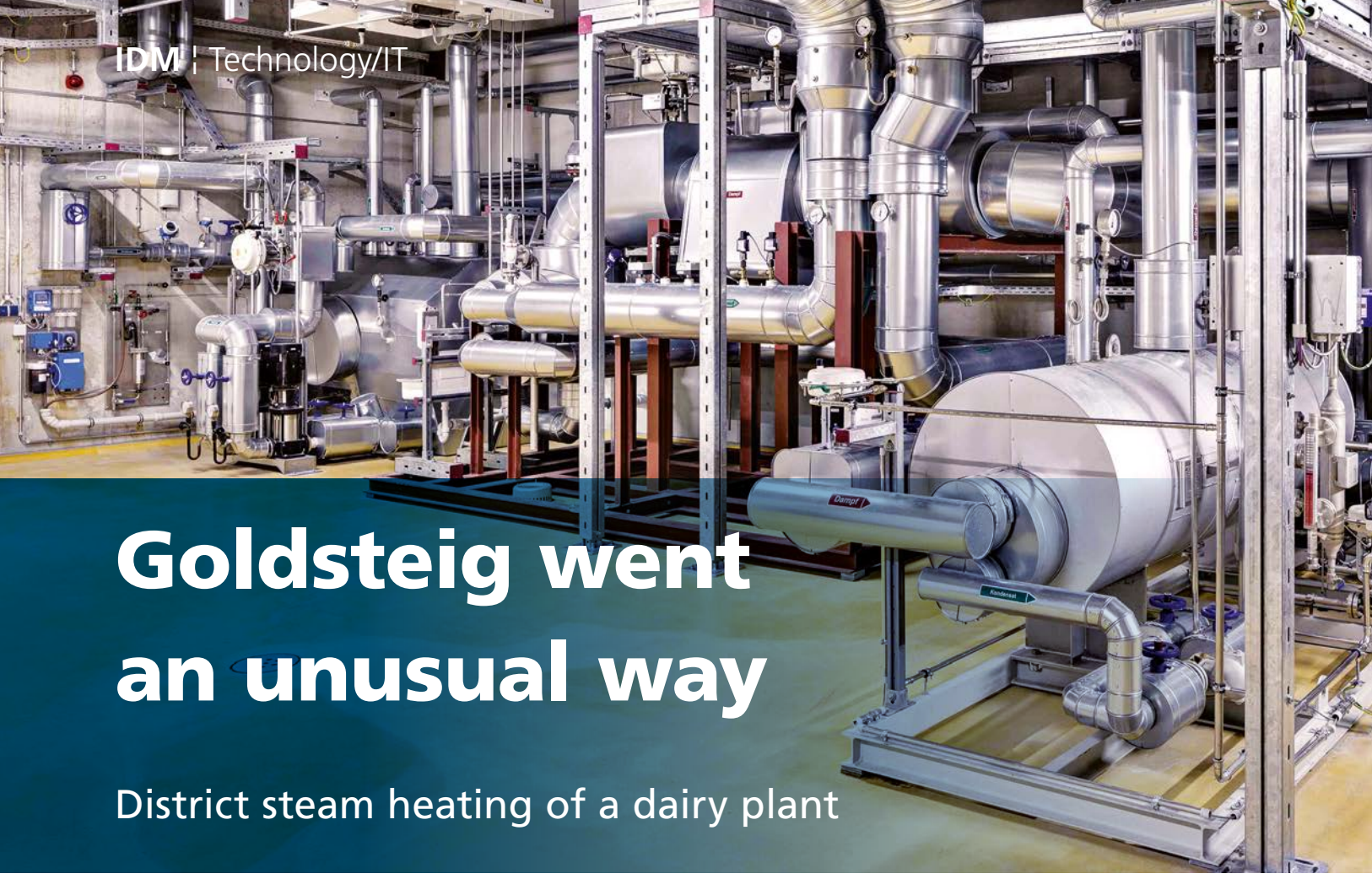
In a meeting (the first physical meeting after the covid19 'shutdown') with EU Agricultural Commissioner Janusz Wojciechowski, we asked for a 'EU Green Dairy Deal', a sectorial strategy: dairy represents 15% of the EU agri-food sector and has a very specific profile in terms of environmental, social and economic sustainability.



EDA Secretary General, Alexander Anton (right), explained the EU dairy industry point-of-view to EU Commissioner for Agriculture Janusz Wojciechowski

Based on our full commitment and the essential work carried out already by our sector, dairy is ideally positioned to serve as a model for other parts of our agri-food sphere.

And such a sectorial approach would help to align the competing objectives in the framework of a complete analysis and to build a coherent strategy that will further boost our dairy sustainability in Europe and beyond.



Goldsteig went an unusual way

District steam heating of a dairy plant

Goldsteig, a Bavarian cheese-making co-op, began building an additional location in the city of Stephansposching in 2017. Since no separate heat supply was planned for the building, a connection to neighboring energy networks had to be made, which should also meet modern requirements in energy management. An own boiler house did not appear to be financially cost-efficient and would also have resulted in higher CO_2 emissions. The dairy therefore turned to the specialists at Gammel Engineering GmbH, who had already implemented a similar concept for their main plant in Cham, Germany. The energy experts recommended an intelligent district steam supply by connecting to a neighbouring paper mill. For this purpose, a heating pipeline was laid to transport excess steam from the factory to the dairy. This steam is thus not simply shut off via balance coolers, as has been the case up to now, but kept in a regional energy cycle in a sensible manner. At Goldsteig, the steam is treated with a pure steam generator and heating condenser in such a way that it can be used as hot water. In order to minimize heat losses during transport, the pipes were designed with double thermal insulation.

The new Goldsteig plant in Stephansposching, which was started in 2017, was intended to replace the old site in nearby Plattling, as it could no longer cope with the increased production capacities. Already at the beginning of the planning, the question arose as to what extent an own heat supply on the factory premises would be sensible – especially with regard to the CO_2 balance. For example, the operation of an own boiler would have meant considerable fuel consumption and also increased emissions. "We therefore contacted the engineers from Gammel right at the beginning, as we had already had good experience with their know-how in previous projects," reports Matthias Kiendlbacher, Plant Manager at Goldsteig Käsereien Bayerwald's Stephansposching facility. "From Gammel came the idea to integrate existing heat sources in the neighbourhood. For example, a neighbouring paper mill is already being supplied with steam by the EON/Bayernwerk Plattling power plant, but this is not fully utilised there. It was therefore possible to branch off excess steam, transport it directly to the dairy via pipes laid partly underground and partly above ground, and finally generate heating water for production. Goldsteig was convinced by this approach and so the energy partnership was finally implemented. "In this way, all those involved benefit from the networking, since no thermal energy in the form of steam is lost or has to be expensively destroyed via balance coolers," explains Dipl.-Ing. Thomas Zweier, Project Manager at Gammel Engineering.

Pipe laying in a difficult installation situation

The project consisted of a total of four construction phases, whereby communication between the parties was crucial for success, since, among other things, the different terrain situations and access routes had to be taken into account by the individual partners. In a first step, an above-ground steam connection had to be established at the paper mill, which in turn was then connected to the heating pipeline to the Goldsteig

View of the technical installations required at Golfsteig's Stephanposching plant for using steam from a nearby paper mill (photo: Gammel Engineering)

This heat exchanger is used to produce clean steam out of the incoming steam flow (photo: Gammel Engineering)

cheese dairy, which was laid in a second step. "The greatest challenge here was the route along a field path with adjacent land belonging to a farmer," reports Zweier. "Although we were able to negotiate a permit for the laying of the pipeline, we were not allowed to use the fields for building. In addition, other pipelines were already running under the dirt road, so that Gammel had to work with special engineering skills: Since a straight pipeline was required for steam transport, the existing gas and water pipes had to be laid in a very confined space. For this purpose, the two pipes were shifted sideways by approx. 1.5 m to make room for a sawtooth steam pipe for optimum drainage of the two condensate pipes running in opposite directions.

In addition to these on-site challenges, the pressure loss in the long-distance steam line also had to be taken into account. While the overpressure in the paper mill was 3.2 bar, only 2.5 bar was available at Goldsteig. Since a lower steam pressure would also have meant carrying less heat and thus less condensate, this loss had to be compensated. "We decided on a two-track tactic here," explains Zweier. "On the one hand, a heat exchanger with a particularly large exchange surface was installed to achieve better heat transfer with almost no pressure loss. On the other hand, the ground pipe is double insulated with mineral fiber and polyurethane foam which minimizes heat loss to the ground". In addition, the casing pipe is impact and break-proof as well as resistant to chemical compounds occurring in the soil. In order to be able to detect possible leaks at an early stage, control wires are incorporated into the insulation layer, the signal of which is continuously monitored.

Clean steam generator and heating condenser

Finally, in a third and fourth construction phase, the supply on the Goldsteig site as well as the technical centre were implemented so that the steam on the dairy site could be safely transported to the clean steam generator or the heating condenser in the basement. Gammel also planned the sophisticated object-specific measurement and control technology. The steam now passes from the district heating pipeline via a pipe bridge to the technical building of the dairy, where it is converted into clean steam for production processes and 95 °C hot water for heating. This is ensured by a clean steam generator with a capacity of 500 kg/h and a heat condenser. Any condensate produced in the process is returned to the paper mill, where it can be used again as feed water for steam generation. In this way no heat and no steam is left unused. "The great win-win effect of this steam conversion is that the electricity generated by Bayernwerk is additionally remunerated, so to speak, because the residual heat after the turbine is now used and a corresponding CHP (cogeneration) bonus is granted for this".

After final acceptance, the responsible team of the Goldsteig cheese dairy was very satisfied with the steam forming concept. "Instead of investing in our own boiler for heat generation, which in turn would have meant up to 30 percent higher emissions and additional radiation losses, we are accepting longer pipes and using the excess heat from the nearby paper mill," explains Kiendlbacher. "This allows us to generate the required heat more cost-effectively and an efficient heat cycle and energy partnership has been established between the parties involved". Although extensive coordination with the paper mill and Goldsteig was necessary, Gammel was able to implement all requirements within the given time frame. "It was a very constructive and cooperative teamwork, with a result we are all proud of. This lighthouse project was therefore all the more fun for us at Gammel", Zweier sums up.

Conductivity meter now with 5 years warranty

Anderson-Negele

The Anderson-Negele ILM series of sensors has developed to such an extent in the food industry that this name is often considered synonymous with efficiency and reliability in CIP phase separation. As a special promotion, Anderson-Negele is offering for a limited time an extended 5 year warranty at no extra charge.

The Anderson-Negele ILM series of sensors comes for a limited time with a 5 year warranty (photo: Anderson-Negele)

The current generation ILM-4 is based on the experience of a series of predecessor models and has already proven its practicality and durability in thousands of applications even under the harshest operating conditions. Most recently, in an upgrade the digital communication interface IO-Link was integrated in a special Flex hybrid technology. anderson-negele.com

New mozzarella cultures

DSM

DSM has launched its new DelvoCheese CP-500 cultures for boosting the yield and resource efficiency of mozzarella cheese production. Capable of achieving a higher moisture content in mozzarella, the range increases yield by up to 1.3%, compared to the most commonly used DVS culture in the US. These cultures also enable cheesemakers to deliver products with superior taste and texture that consumers will enjoy and are ideal for creating mozzarella cheese for pizza, offering a mild buttery flavor, excellent stretch and melt behavior and reduced browning for an enhanced eating experience.

Knowledge portal for sustainable packaging

pack4sustainability.org

VDMA has launched a new knowledge portal on sustainable packaging and packaging technologies. The website shows packaging materials and their properties, an overview of relevant regulations, as well as infographics and expert interviews. pack4sustainability.org

Leadership hand-over

EWPA

After 25 dedicated and successful years at the service in and for the European 'lactopshère', the deputy secretary general of EDA (European Dairy Association) and secretary general of EWPA (European Whey Processors Association), Ms. Bénédicte Masure took her retirement and handed over the leadership of the EWPA to Alexander Anton, who has been heading the EDA for the past seven years.

"The whey sector has changed profoundly over the past years and Bénédicte was for sure one of the drivers of this change. Bénédicte leaves a huge footprint behind her: the whole dairy industry association landscape mirrors today her attitude and performance. Not least the significant increase of the membership and the numerous projects carried over by the association reflect her elan and energy. Bénédicte has built up incredible credentials of trust with our members, within the team and in the Brussels agri-food scene. It is a real challenge to succeed her in the EWPA leadership role and to keep the strong momentum that Bénédicte created," Anton said.

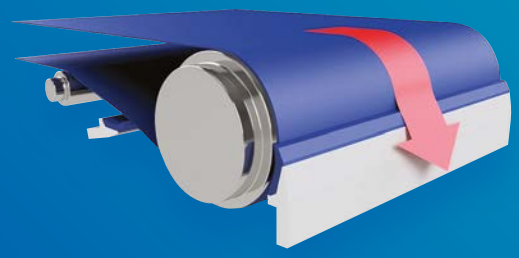
Alexander Anton follows Bénédicte Masure as Secretary General of EWPA

Belt-friendly TPU scraper bar
Habasit

Habasit offers a conveyor belt-friendly TPU scraper bar for fabric and monolithic belts. Efficient in the removal of product residue, TPU scraper bars ensure better hygiene, are safer for belt surfaces, and easier to clean.

The food processing industry has put up for years with a major disadvantage of rigid metal and hard plastic scraper bars: the risk of damaging the belt surface. When cracked and scratched, the belt becomes harder to clean, and cracks can become a home for bacteria to grow.

While classic belt scrapers are usually completely inflexible, the Habasit TPU scraper has the advantage of a flexible tip, which translates to three key advantages: no risk of damaging the belt surface, more efficient and even belt cleaning. Easier cleaning – as liquids like oil, water and detergents are better dealt with by a flexible TPU scraper bar which maintains continuous contact with the belt surface.



While classic belt scrapers are usually completely inflexible, the Habasit TPU scraper has the advantage of a flexible tip (photo: Habasit)

New filling technology for ESL beverages
GEA

The new Whitebloc Aero by GEA uses proven technology that has been optimized to meet the specific needs of producers of ESL beverages, that often focus on small batch production, to give them the edge in a competitive marketplace. These include simplicity, efficiency, reliability, practicality, sustainability, flexibility and the lowest possible TCO.

The GEA Whitebloc Aero's design is optimized for the treatment time required in ESL applications; this allows bottle decontamination with dry H_2O_2 and subsequent activation with warm air to be performed on a single carousel which keeps the layout as compact as possible. The decontamination, filling and capping processes are performed in a simple hygienic cabin with a top-down laminar flow of sterile air with a slight overpressure to maintain a clean and protected environment. gea.com

GEA has launched its new Whitebloc Filling System Aero that has been specially designed to be used for bottling ESL beverages (photo: GEA)

Show preview
Hi Fi Asia China 2020

Hi & Fi Asia-China will open its doors from 25 – 27 November 2020 in Shanghai, China at the NECC, Shanghai.

Hi & Fi Asia-China offers five shows in one, with its co-located events providing access to the entire industry under one roof.

- **Food ingredients Asia-China** | The leading gathering of food and beverage ingredients suppliers
- **Hi China** | A centralised hub for health and natural ingredient suppliers
- **HNC** | Explore healthy finished products, dietary supplements, health foods and functional foods
- **ProPak China & FoodPack** | China's premier event for the processing and packaging industries
- **Starch Expo** | Find starch and starch derivatives suppliers in the Asia Pacific region

The combined events will cover 100,000 square metres, welcoming over 50,000+ visitors and 1,300+ exhibitors from around the world. This makes Hi & Fi Asia-China the only event of this scale in China, showcasing the entire food and health value chain in one location.

Hi & Fi Asia-China will also include a range of special features to help visitors and exhibitors keep up to date with industry developments and network with colleagues from across the globe. Show highlights include the Nutraceuticals Industry Development Conference, Innovation & Content Hub, Self-Guided Discovery Tours and Business Matchmaking among many others. To read more, see the website: www.figlobal.com/china/en/home

Cheese cutting machines

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The business IT solution for your entire enterprise

(photo: Hydrosol)

Plant-based dairy alternatives
Ingredients

(photo: GEA)

NOVALOBE pump in butter-making
Technology/IT

(photo: Sidel)

UHT milk boost
Packaging

(photo: Syntegon)

Variability, hygiene and productivity
Packaging

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