

# WE DELIVER.

A well-organized supply chain is the heart of a dairy. From milking to production to sales, countless people are busy making sure everything keeps moving, despite the pandemic and war.

The supply chain is like a well-oiled machine. All the components work smoothly together, from milking to collecting, storing, producing, transporting, selling, in a cycle that keeps on moving. The supply chain is crucial. Without it, products would not reach supermarkets. The process has to be both flexible and precise, as sensitive and responsive to change as a seismograph. It must be able to anticipate well in advance the factors that could affect its success, whether these are droughts, pandemics or energy shortages. It is a highly complex logistical system. Right now, the whole world, including DMK, faces challenges that could not be predicted a few months ago. Those changes have unleashed a new era and are shaping and influencing every single area of work. How can DMK continue

**IN THE KNOW**  
**In Germany, 9 out of 10 households** regularly have dairy products in their refrigerator. Dairy goods are among the largest retail food groups. Dairies like DMK make sure those goods are available, feeding millions of people.

to bring top quality goods to market amid the dramatic upheaval unleashed by war, the pandemic, soaring prices for energy and raw materials, in addition to ever changing agricultural and nutritional trends?

**Reduce the risks**  
Logistics Director Hartmut Buck describes working on the supply chain day in, day out as a little bit like a strategy game that has several unknown factors. He and his team are responsible for ensuring goods leave the plants and reach their destinations whether by truck, trains or shipping container. In Germany, it barely takes 48 hours from the moment a customer places an order to the time it reaches their warehouse. Those in charge of managing the logistics coordinate all the steps, making sure everyone involved carries out their task and connects so the process runs smoothly. DMK ships freight around the world each day, stacked on pallets



for trucks, placed in cheese crates or shipping containers for ocean voyages. Blocks of cheese, grated cheese, puddings, cream and milk are all distributed around the globe to destinations throughout Saudi Arabia, Africa and Asia. In the freight sector, logistics functions a bit like a game of dominoes. The system only works if each and every link is in the right place. That starts with entering the customer's order and checking the product is available. Next, specialist software calculates the loading space available in the different kinds of trucks. The logistics team gives the orders to the freight forwarders who then plan the shipment, allocate the routes and coordinate the loading times. Then, once the system has all the information, the routes are transmitted to the warehouses in the evening, by about 10 pm. During the night, the products are picked, prepared and then loaded the following day. "The shortage of freight space means we often face particular challenges,"



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**48 hours**  
...pass from the placing of the order to delivery to the customer's warehouse.

says Buck. At present, he says, there are no guarantees that the entire process up to the point of delivery will go exactly as planned.

## Ten steps ahead

DMK relies on an economical and flexible distribution strategy thanks to Ron Geerds, Head of Transport Logistics. DMK Logistics does not have its own fleet but works with a large number of forwarders, who specialize in a range of different areas. "That gives us a broad base and means we have alternative transport options if needed," says Geerds. Such flexibility was important as companies were struggling with a shortage of drivers even before the pandemic broke out. "Many Ukrainians have gone off to fight, not knowing if or when they will return." That exacerbates the situation considerably, he says. For he and his team, working in logistics means



*"This time, we are facing a whole new set of challenges."*

Hartmut Buck, Director Logistics.

keeping a constant eye on the news. From COVID-19 to the lockdowns in China to the container ship that blocked the Suez Canal, all affected how far ships were able to stick to their planned times of departure. "At the moment, it's only about 30 percent." Colleagues throughout the company work to counteract all the uncertainty, from the internal sales team who book shipping companies to the warehouse logistics staff. The teams make sure they are thinking ten steps ahead. And to better anticipate shipping delays, staff are currently testing a software provider that monitors all shipping movements and processes them in real time using GPS data.

**Road runner** – trucks like these bring freight to the remotest parts of Germany on a daily basis. DMK's transport logistics team weighs up every eventuality to guarantee punctual delivery.





Speed, strong nerves and good teamwork are needed at every stage of the supply chain.



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**2,000**  
products  
make up  
DMK's range.



*“Route planning, customer service and merchandise planning are all pushed to their limits almost daily.”*

**Ron Geerds**, Head of Transport Logistics.

“That helps us respond more quickly and enables clients to follow their goods online.”

He has seen plenty of crises in the past, even if they didn't compare to the current situation. You need a great deal of tact and excellent communication skills when things don't go according to plan every day, says Geerds. “Route planning, customer service and merchandise planning are all being pushed to their limits on almost a daily basis.” If goods are going to be late due to a traffic jam, the team gets in touch with the customer's receiving department staff, asking them if they can stay open a bit later. “Cooperation is absolutely fundamental, in our industry.”

Meanwhile, as the price of diesel rises rapidly due to the war, the team has to pull together to find solutions in other areas as well. DMK is supporting transport service providers, for example, in order to ensure deliveries can be maintained and to secure freight space. The customer is at the center of all of these business decisions - and customers want punctuality. So the team needs to be flexible if another product is needed at short notice, for example, or if there's a disruption in the plants or warehouses, or traffic is delayed. Mostly, these solutions need to be found under significant time pressure. So far, though, the goods have always made it to the supermarkets, says Geerds.

Hartmut Buck and his colleague Ron Geerds are sure this will continue to be the case in the future. But that requires swift work, effective teams and strong nerves on the part of all those who together sustain the supply chain. They rely on solid teamwork and staff who are motivated and experienced. “When you all work together to resolve a difficult situation, you always share a huge sense of achievement at the end.”

**Hunting for vital vitamins**

His colleague Heike Fastenau-Gross shares these views. She is head of Central Purchasing at DMK and is responsible for packaging materials and ingredients, including crucial additives such as oils and fats that carry flavor and enable people to absorb certain vitamins. Plus, they affect the consistency of many products. Starch from potatoes or wheat serves as a binding and carrier, for example, while herbs and spices add flavor, stimulate the appetite and help people digest food better.

Right now, Fastenau-Gross and her whole purchasing team are struggling with supply bottlenecks affecting mustard and wheat that is stuck in Ukraine. Plus, China's zero-COVID strategy brought ports and factories to a standstill, with Shanghai's 25 million residents in lockdown for weeks, unable to leave their homes. That meant a stop to trucks carrying raw materials or goods for sea transport. “China is the most important market for vitamins and minerals,” she says. Take vitamin K, for example, a key baby food additive. A further 300 ingredients DMK needs also come from China.

Meanwhile more than 80 percent of the world's chives are from China, too. That affects products like MILRAM spring quark. “But even if we don't source chives from there, we face difficulties because there is enormous demand and very few suppliers worldwide.” The team deals with shortages in a range of ways. They build up stock early on, so they have some supplies set aside. They source goods from other countries and they also test alternative ingredients. And just as Germany's Economics Minister is currently looking different



*“DMK has managed to keep producing without interruption.”*

**Heike Fastenau-Gross**, Director Corporate Procurement.

sources of gas, her team is also busy putting out feelers to find substitutes or do alternative deals. So far, things have always worked out well, she says. Even though DMK has to procure more than 8,000 ingredients and materials every year from markets around the world, it is managing to maintain production, virtually without pause. Like the freight staff, her team also uses digital tools to warn suppliers of any possible problems early on in the process, to make sure there is no interruption to the supply of packaging materials. “These measures are working a lot more quickly than in the past thanks to DMK's transformation,” she says.

“We can adjust our planning much more quickly.” Crises, she says, are ultimately always an opportunity to try out projects that were on hold or develop software faster than planned.

**Orchestra of net-working**

Digital tools are also crucial for planning and keeping an overview, if you ask Sophie Gennies, Director Supply Chain Optimization. Her job is to monitor and match customer requirements with incoming milk and capacities - while ensuring DMK gets the best value. She starts planning around 18 months in advance, on average. DMK has more than 2,000 products. When things don't go according to plan, she manages by working together with the teams from Sales, Planning, Raw Material Control, the plants, and many other areas. “There are often differences between the milk we receive, customer demand and capacities at the individual plants,” she says. Gennies then makes suggestions as to how to reschedule. Every day, the management team assesses the situation anew. “When the pandemic first broke out, there was nothing that was not affected,” she says.



**A container ship in Hamburg port:** It takes weeks for freight to reach its destination. On average, goods need 100 days to get to Asia and back, up from just 80 before the war and lockdown.





*"I think in terms of inventories."*

Sophie Gennies, Director Supply Chain Optimization.

Consumption suddenly shifted as people stayed at home due to restrictions, prompting a shift in demand for particular products. There was a sharp increase in demand for ready-made pizza alongside a surge in the need for grated cheese in the B2B sector. "We couldn't rely on historical data, we had to start over from scratch!" The team was unable to transfer any of the information about pre-pandemic product flows to the current situation. "I think in terms of inventories and utilization," she says. That is truer than ever these days, she says, with more and more ingredients and packaging materials difficult to come by, either through delays or with no supplies available at all. But they are focused on the task in hand. "Every day, our job is to process the raw material milk our farmers provide into the way that delivers the best possible added value for our customers," says Director Supply Chain Optimization.

### Flexible customers

Everything has gone smoothly so far, she says, despite the pandemic and war, even though many of the effects will only be felt further down the line. That allows her time to develop possible strategies for different

Herbs, oils, flavors – the ingredients in DMK products come from all over the world.

scenarios. The customer plays a huge role in this process. "We need to involve customers if we are going to keep having to deal with bottlenecks," she says. For example, "flexibility is needed if there's a shortage of aluminum affecting the lids to cover pots of quark, or if the labels are in short supply." Possible scenarios could include using packaging that is only made of cardboard, or providing quark for customers to fill directly into plastic Tupperware containers. These possibilities do not yet come into question but Gennies probably wouldn't be doing the job she is today if she wasn't preparing for such eventualities.

### Alternative raw materials?

Any shortage of raw materials is likely to impact almost all of DMK's products, which in turn influences the recipes in terms of how the products are made and the ingredients that are used. Some 60 percent of the sunflower oil DMK procures comes from Ukraine. It is used in making baby food, among other things. Product development, Purchasing and Quality Assurance are currently working at top speed to find solutions. "We can still produce all products with the quantities that are currently available," says Patrick Weber, Managing Director Operations DP Supply. There is also hope that oil can be produced from sunflowers that were sown in areas not yet affected by the war. "We are assuming that there will be at least some sunflower oil available," he says. "What is clear, though, is that the situation on the market is pretty strained, given the shortage." Politics plays a crucial role in food production, in his view. Who has the right to first refusal



*"We are still able to produce all our products with the quantities that are currently available."*

Patrick Weber, Managing Director Operations DP Supply.

for which raw materials? Which comes first, oil for French fries or for baby food? How will politicians set priorities for critical infrastructure?

### Precious power supplies

Setting priorities is something that Klaus Landwehr specializes in, as Head of Energy Management. He spends his time calculating the current quantities of energy available and working out how much more is needed in order to ensure the plants can keep running, even in crisis. If less gas is available, that would mean massive restrictions on production as the plants require large amounts of energy. "The pandemic and the war are driving prices up to astronomical levels," he says. "It's having a severe impact on companies that haven't stocked up for the long term." DMK expects the gas price to stay high or to rise even further, if the war continues in Ukraine. How will this affect other products and markets? Landwehr is constantly considering these questions. Besides supply and demand, there are risk premiums involved, which translate into rising costs on almost all goods for industry and consumers alike.

### Before and after

In the past, before the war and the pandemic, DMK and other German industry producers did not face any particular challenges in terms of the price of gas and the quantities available. The prices were acceptable, as were the volumes, says Landwehr. Demand for carbon-neutral or low-carbon products was rising, he notes. Now, DMK is now steering towards renewable energy, with a series of measures under way. "We are now procuring some initial e-vehicles for the fleet," he says. "A team is currently addressing issues such as charging infrastructure and billing models." Meanwhile DMK is looking into hydrogen engines for milk collection trucks. He lists all the areas he and his team are currently working on: "Biogas, hydrogen, using off-site heat sources, using

surplus heat from companies nearby - we're looking into how feasible these are and how we could implement these approaches." None of these would be options in the short term, he says, adding that the team is working harder than ever on making these possible.

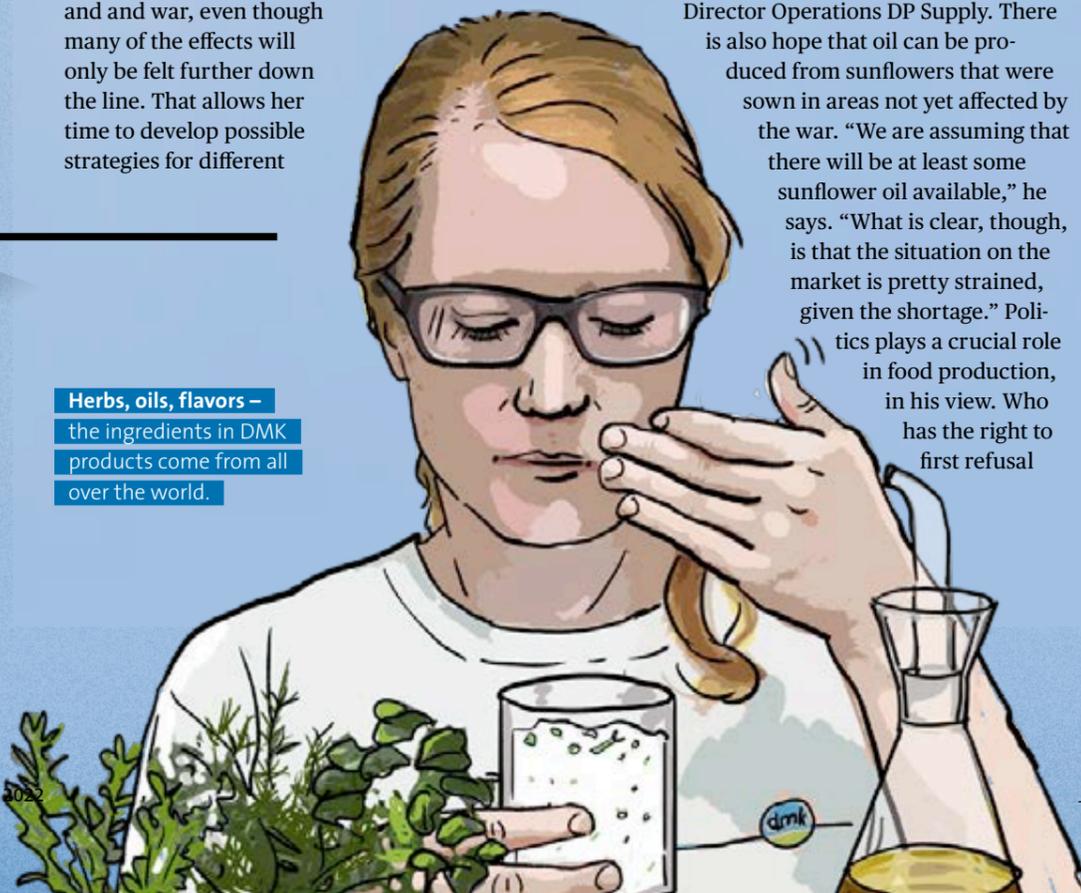
### Necessary measures

"If gas supplies are interrupted, we have to react flexibly, depending on the needs of each particular site. Even though the government is ensuring gas storage facilities are being filled gradually, lawmakers will likely reserve the gas that's stored for use during the winter," says Klaus Landwehr. While the German government has raised its outlook on the energy situation to the "alarm" level, the company hasn't faced a reduction in gas quantities yet. For now, the country is using all the network and storage operators' available supplies, on the market and in the network. Once these run out, and the government escalates the situation to "emergency" level, meaning producers must scale back their gas consumption, DMK will activate its own crisis management plans and reporting structures. For now, the sites are using simulation tools specially for this situation, to work out possible scenarios if there was a sudden halt to supply, based on the amount of gas they need. They will submit these to the central crisis management team for further review. The process would involve extensive redirection, with the crisis management team deciding how raw materials should be allocated and what quantities of goods can be produced with the ingredients, packaging and other resources that are available. This enormous logistical process requires extreme flexibility, and the capacity to respond to the goods that are available. "It is a massive challenge for the whole industry, one that has never been practiced before," Landwehr says. "We can only hope this situation never comes to pass."



*"If gas supplies are interrupted, we would try and be highly flexible in our response."*

Klaus Landwehr, Head of Energy Management.



### Milk: Core product

The heart of the supply chain, however, is the milk that farmers provide, forming the basis of most DMK products. Despite the pandemic and other unexpected events, farmers are still delivering raw milk as regularly as clockwork. They are supporting milk tanker drivers and, as true entrepreneurs, are always willing to go the extra mile to pitch in amid labor shortages on farms.



*“They are aware that they are the first link in the supply chain.”*

Dr. Klaus A. Hein, Managing Director Deutsches Milchkontor.

“They are aware that they are the first link in the supply chain,” says Dr. Klaus A. Hein, managing director Deutsches Milchkontor. But even before the pandemic, farmers were facing challenges that were causing severe financial difficulties. The droughts in 2018 and 2019 led to considerable losses of food supply for cows on some farms, leading to lower milk yields. “All these were and remain part of the daily uncertainties farmers are facing, and for some, they are causing massive problems.”

Some regions are again struggling with drought and dry conditions. And as the war continues, farmers are forecasting feed shortages, as key parts come from Ukraine. Furthermore, there are shortages of spare parts for technical equipment and of construction materials. “The costs of fertilizer, energy and feed have risen dramatically,” Hein says. Prohibitive costs, or the lack of necessary parts, mean farmers cannot carry out the construction projects they were planning, which in turn means they cannot finance them as originally planned.



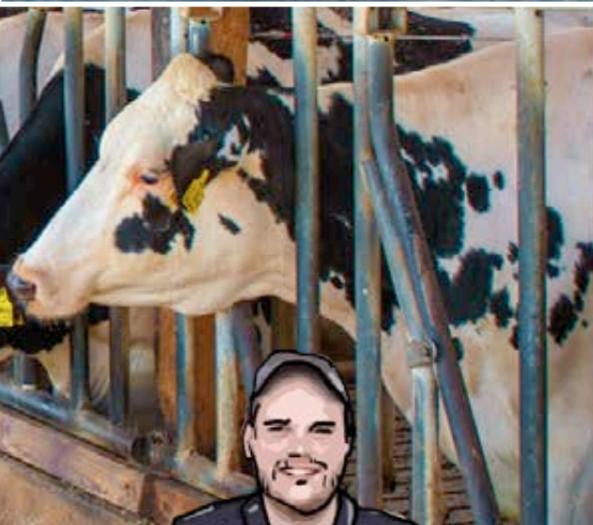
The situation is also uncertain when it comes to organic feed. Volumes of milk are not growing, despite the high milk price, due to high production costs, labor shortages and little capacity in the barns due to structural changes. Farmers who want to build a barn also need to obtain a large number of permits. “It’s important to openly address what are sometimes significant fears about the future as well as people’s ongoing frustrations.” After all, what farmers really want is the ability and security to be able to plan and meet their long-term goals.



Feed shortages, staff shortages, new animal welfare requirements – despite the higher milk price, farmers are struggling due to the bottlenecks on the raw materials market.



Teamwork is in farmers’ blood. Especially in times of crisis, cooperating pays off.



Henning Steffens, farmer.

### “This gives us farmers tailwind.”

“The start of the war has made the situation for us farmers significantly harder. It is almost impossible to plan anything. But there is also light in the darkness: the trend on the dairy market is very positive, people are eating plenty of dairy products despite the higher prices, and I believe the payout price will stay at this level for a while. That gives us farmers tailwind! Rising food prices are also an opportunity, because they mean people place a greater value on food. To ensure that milk as a raw material remains a reliable link in the supply chain in the future, market players and policymakers have to do their part too. We have highly trained farmers who will rise to this challenging occasion and adapt their farms to meet society’s needs. But that costs money. We need to find a more honest basis for cooperation: on the one hand with politicians who are making the decisions and on the other with food retailers. Agriculture needs to be supported on a permanent basis, not just in phases.”

## myMilk



### Better revenues

How can these needs be met? What is the dairy doing to help? Services such as the fixed-price model are providing at least some relief, by helping secure a stable milk price over a longer period of time. The milk price is one ray of light. The farmers’ economic situation is considerably improved by the farm-gate price of 50 cents per kilo of milk, almost 30 percent more than it was 15 months ago. “That has noticeably brightened people’s mood,” says Hein, an agricultural economist. “Even if many are using the money primarily to service debts they have from the past.”

### Taking responsibility

Farmers are emotionally attached to their farms. “They do everything they can to keep them going,” says Hein, who also comes from a former dairy farm himself. Thinking ahead, forecasting storms, tilling fields depending on the weather are all part of their DNA. “They need a certain level of freedom and a more active role in political decision-making processes in

order to be able to do their jobs.” Particularly in times of crisis, their pragmatism can pay off, he says. “Farmers who delivered reliably during the pandemic are still doing so now,” says Hein. That DMK’s supply chain has remained intact has much to do with their commitment and belief in their profession.

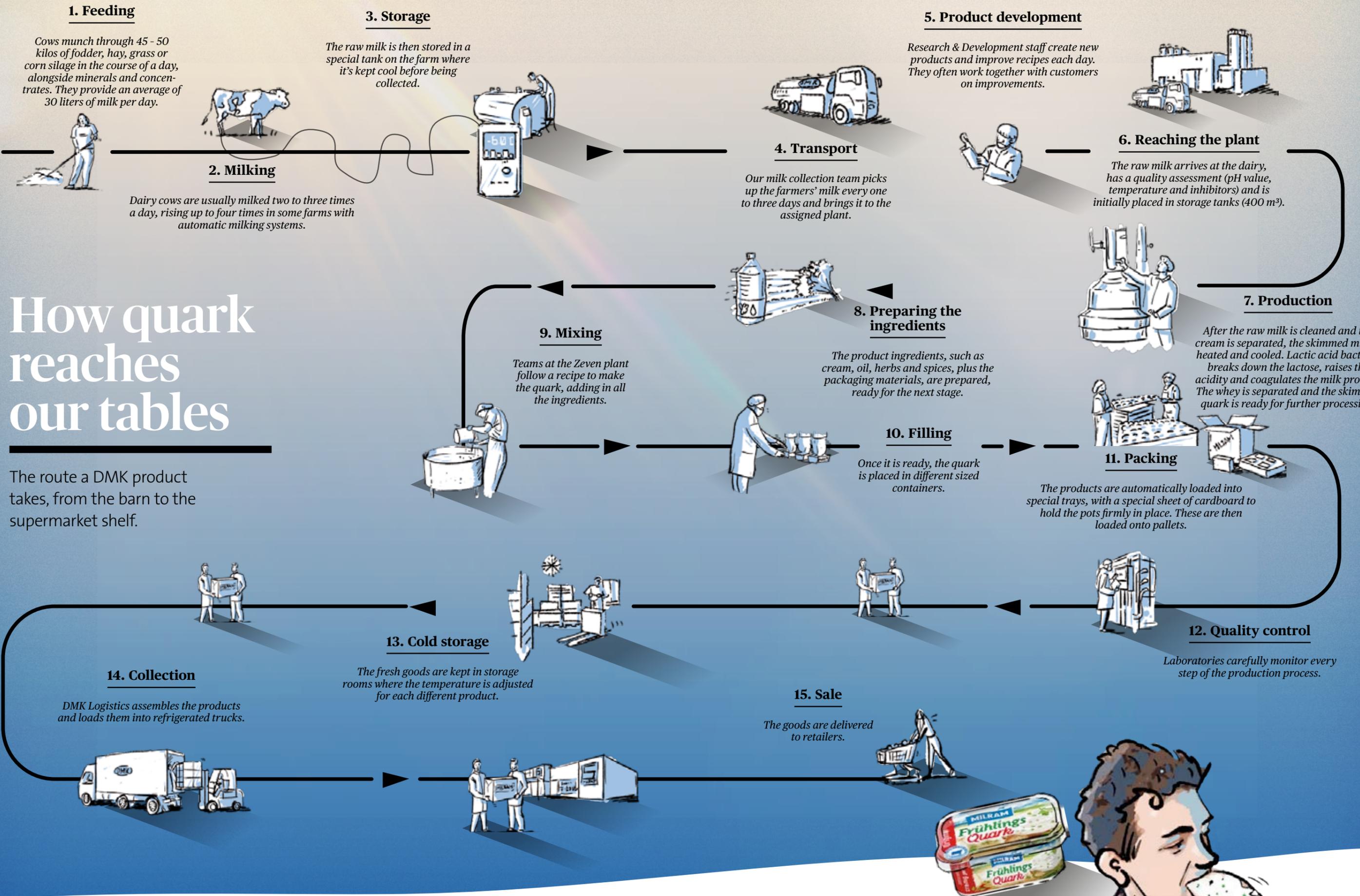
That applies to everyone involved in the entire, complex supply chain, he says. Everyone helps out in their area to make sure that DMK remains a reliable company that consumers can trust.

A look at the full supermarket shelves speaks volumes.



MILRAM spring quark, one of DMK’s most popular products. The fact that consumers can just pick it off the shelf is a real tribute to suppliers.





# How quark reaches our tables

The route a DMK product takes, from the barn to the supermarket shelf.



# “These times call for vision and a plan”

The dairy is facing a turning point. But the pandemic and other crises all show that DMK is equal to the challenge.

**Barely is one crisis over, now we face another. What does that mean for the dairy industry?**

*The world is changing so rapidly. Alongside changing nutritional habits and climate change, we are also back focusing on security of supplies again.*

**What does this mean for the production foods that need to be kept at cold temperatures?**

*Milk and dairy products are highly perishable and raw milk can only be stored for a few days, so we are counted as part of the nation's critical infrastructure. That means it's all the more important to keep the supply chain running smoothly! Right now, we are drawing on the same good sense and foresight that brought us through the pandemic, to keep producing food under the current circumstances. The situation is so dynamic, and we often are only able to make decisions based on the latest events, but we still aim to be a reliable supplier.*

**We talk a lot about 2030, but shouldn't we focus more on planning the here and now in these difficult times?**

*It is particularly important that DMK is reliable, of course, given the current developments, as I said. However, at the same time we need to plan ahead and develop in line with those plans. Crises do not stop or change trends, they just alter the speed at which they happen. So as a company, Vision 2030 is still our basis for meeting these challenges and we are still in the process of implementing it, step by step. Being consistent and focusing on the future is paying off more and more.*

**How are our dealings with the retail sector, with such dynamic market developments?**

*We are having lively, intense discussions. Higher prices for energy, packaging, feed, fertilizer, ingredients and transport need to be offset by higher sales prices to help producers and the processing side of the business. We enter all negotiations with this in mind. That is how we have achieved price increases for milk and cheese, in retail and industry alike. We are gradually passing these on to the dairy farmers.*



**Retailers really value cheese as a big seller. MILRAM sales have increased five fold in the last decade. How did that come about?**

*That is thanks to our transformation at DMK: We have expanded many of our brands over the past few years, expanded our product range with new products and varieties, and we've also reached out to younger target groups through social media. That's all paying off: our MILRAM business really flourished in 2021. Our market leader also benefited from the growing demand for our Food Service, as restaurants reopened once COVID restrictions were eased. Our MILRAM cheese and our spring quark are now on sale virtually nationwide. The brand stands for tradition and trust which is enormously important.*

**Farmers have been facing challenges for a long time, even before the war. Is there any good news on the horizon, for the coming months?**

*The past two years have really shown what unpredictable times we are living in. But there has been dynamic growth on the market over the past few months. We are continuously raising the amount that we are paying for milk. We are cur-*

*rently paying out well over 50 cents, which means we are still above the official national comparison (BLE). We're not expecting to fall below that level in the second half of 2022.*

**How do all these crises affect you personally, from the pandemics to the war and the wider situation?**

*I'm finding it's a real emotional roller coaster. On the one hand, war in Europe is showing us how fragile our world is. Plus the political climate is changing fast. Both are challenging for us, now and in the future. On the other hand, there have been some real high points this year. We can truly be proud of our business achievements and of our company as a whole. The crisis has brought us closer together. One thing I'm drawing from my many conversations with employees and farmers is that we are putting all our energy and determination into finding solutions. We want the cooperative to stay stable and successful. That is our goal, not just in corporate management but one we all share.*

\*BLE: German Federal Office for Agriculture and Food



Ingo Müller, CEO DMK.

