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Avebe is a fantastic company bursting with committed employees and members.

I'm pleased to present our new Avebe Magazine. As you can see, we've given it a makeover. I am writing this foreword at the end of April 2021 and hope that by the time this magazine is published the pandemic situation will have greatly improved. Corona has made heavy demands on us all this past year. During the first wave we were spared from infection, but after the summer many of our colleagues or relatives did not go unscathed. Everyone has gone the extra mile to keep everything up and running. Thank you!

This magazine includes articles on topics such as the extension of our visual identity, the impact of Brexit on Avebe, investments, talent development, innovation and personal stories of colleagues and members. Avebe is a fantastic company bursting with committed employees and members. A company with a clear strategy and good results.

The time has come, after 13 years, for me to leave Avebe. The foreword to the next magazine will be written by my successor. I hope to meet many of you before then to thank you in person for your contribution.

R/AWWY/

Sincerely yours.

Bert Jansen CEO, Royal Avebe



"Personal contact is as important as ever."

How do you maintain close contact with your members in the corona era? Avebe's Agro teams in the Netherlands and Germany have recently been using digital tools to share their knowledge with growers. Harm Germs and Britta Koehler explain how exactly this went. Also, two growers share their experiences about their collaboration with Avebe.





It did take some time to put the plan in place, says Germs. "Sharing information online calls for a different dynamic. It all starts with building the website to present all the information about the trials, varieties and objectives on the trial fields in the Netherlands and Germany. But we weren't there yet. We wanted to provide information with weekly vlogs, such as when there has been frost damage or about new developments such as varieties with improved phytophthora resistance."

'If the growers cannot come to the demo fields, then we'll take the demo fields to them', thought Account Manager Agro Harm Germs and his team members. The cooperative has been keeping its members informed of the latest developments at the trial and demo fields with a website and on-site videos since the start of the corona crisis. It took time, meticulous planning and some practice, explains Germs. But the result makes it all worth it, says grower Harmen Wollerich.

The decision was quickly made in March last year: the demo fields would be used, as in other years, to monitor developments in the growing season. Harm Germs: "It soon became clear that corona would make it difficult to visit the fields, but we didn't know for how long. But waiting wasn't an option. We decided almost immediately to create the website demo.avebe.com. We use the site to present the trials, background information and results of our crop optimisation programme Optimeel."

Best alternative

Harmen Wollerich is an arable farmer in Stadskanaal and grows potatoes, barley and sugar beet on 66 hectares together with his parents. Starch potatoes, including seed potatoes, occupy half of his acreage. Harmen is enthusiastic about how Avebe keeps him informed: "The great thing about the videos is that you can watch them at a time that suits you. During a live demonstration you get to view the field once and you've seen the result. But being able to exchange views at such a meeting does add value. But as that's not possible right now, this is the best alternative: you focus more on the results that are presented."

New information

Growers are alerted to new information on the website by e-mail. "This shows us which items are actually being viewed," Harm explains. "People respond positively to new developments, for example around phytophthora resistance.

Growers also like being able to see how other growers are doing." Wollerich agrees. "During the season I found the vlog on soil moisture very interesting, as well as the video on the start of the campaign and the trial harvest. The online demo field is well thought out and looks fantastic." The website will certainly remain, even when the coronavirus has been contained, says Harm. "It currently also functions as a reference work: you can retrieve the information you need as soon as you want it. We'll resume the field meetings once it's allowed again, but the information will also remain available digitally."

The importance of physical meetings

Manfred Dralle, Managing Director of ABELO GmbH & Co. KG, manages more than 600 hectares on the Lüneburger Heide. Potatoes form the majority of his crop. Besides French-fries potatoes he grows 60 hectares of starch potatoes for Avebe. For successful growing operations Manfred relies on the advice of Britta Koehler, Agro Field Service Manager. To work closely together even during a corona pandemic, the two usually communicate by telephone. But Avebe also offers various digital ways of exchanging information in Germany. Specialist topics are discussed and made transparent using the virtual demo field, online seminars and virtual field days.

These vlogs from the virtual demo field are very handy, especially for young potato growers. "While digital solutions certainly offer many advantages, they cannot replace a physical meeting," says Manfred. Britta agrees. "In the future, we'll offer

a combination of physical meetings and online events," she says. "The traditional annual field evenings in the growing areas are important for the exchange between crop advisors and farmers. As well as the professional exchange, face-to-face talks with the growers are also held here. It is precisely the personal contact that is important in the cooperation with growers and partners."

Red areas

Avebe works closely together with the grower to produce meticulous fertilisation plans. Manfred and Britta are already preparing to fertilise their plots in what are referred to red areas. These are areas where fertilisation rules have recently

If the growers can't

been tightened up considerably. Half of his plots are in such a red area. The grower has been fertilising according to the requirements of the new regulation since 2020. For example, potatoes receive only 120 kg of nitrogen per hectare in a stabilised form. Avebe is also working on sustainable solutions in potato cultivation to support growers like Manfred. "Breeding suitable varieties plays an important role in this," says Britta Koehler.

Sustainability

The strong demand for water will be the future's next challenge. On his sandy soil Manfred cannot do without irrigation systems. All his plots are suitable for

the use of sprinklers. In view of climate change and a more limited water supply, he is focusing on targeted use combined with priority for the plots with a special need for water. His motto here is: "As much water as required, and as little as possible. His aim is to get the best results by using the water source as efficiently as possible. Britta also supports and advises the grower in this process. The theme of sustainability is important here. Britta: "Avebe's long-term goal is to reduce by 10% the environmental impact of crop protection products per hectare, carbon emissions by 10% per tonne of starch through lower energy consumption and improved nitrogen use, and achieve 10% more potato starch and protein per hectare with new potato varieties and precision farming." Manfred adds: "Environmental protection, fertiliser reduction and irrigation water conservation are more topical than ever when it comes to making the crop future-proof. That is why Avebe is such an important partner for me."





Bert Jansen will be stepping down as Royal Avebe's CEO on I October 2021. On 18 May, the supervisory board announced that they had found a suitable successor for Bert in David Fousert. David is due to start as Royal Avebe's new CEO and director under the articles of association on I September.

David Fousert gained ample experience in a range of international leadership positions in the agrifood sector with Cargill and ForFarmers. In his current role as chief operating officer (COO) of ForFarmers, he is responsible for some international divisions and for the business units marketing, nutrition, strategy and innovation. David Fousert has worked in the agrifood sector for quite some time and gained a great deal of experience in improving the business across the board in large and complex international environments. Over the past years, he focused largely on achieving sustainable growth with the implementation of market-led strategies

As CEO of Avebe he will use his experience to realise the strategic course to more value for growers, clients and employees. Innovation and sustainability run through the strategy like a guiding theme. David Fousert: 'My first impression from the various talks I've held is that Avebe is a dynamic, forward-looking, ambitious and proud cooperative. It has a strong foundation with a clear strategy that brings these characteristics clearly to the fore. I am of course very much looking forward to getting started in early September, both with Avebe's employees and its members.

Marijke Folkers - in 't Hout, chair of Avebe's Supervisory Board: "We are ambitious and want to grow in value, whilst reducing our impact on the environment at the same time. David Fousert's passion for the agrifood sector and sustainability, his enthusiasm, connection and focus on result make him the best candidate to develop Avebe further. We are pleased that he will take over the baton from Bert Jansen as of September."

Bert Jansen will leave the cooperative after 13 years. Under his leadership Avebe became a financially strong company. The strategic change in direction ensures that Avebe is a cooperative that grows in added value for its members, employees and clients. "We are deeply grateful to Bert Jansen for his enormous input, involvement and for the way in which he turned Avebe into an innovative cooperative focused on the future", concluded Marijke Folkers.

Avebe is working towards a sustainable future.

Plant-based protein has now become a key part of our diet. And not only ours, but also that of our farm animals and pets. Avebe is expanding production capacity in response to the strong market demand, largely driven by the need for sustainability and a flexible diet. This is taking place both in the Netherlands and in Germany.



Dallmin opens new protein factory

In Dallmin, Avebe is investing heavily in the expansion of the potato starch factory with a protein factory. It is due to be commissioned in September 2021, at the start of the next campaign. Centrally located in Prignitz, this factory will produce around 3,500 tonnes of potato protein for the animal feed industry each year.

The performance price of starch potatoes is rising

"Our investment is profitable for all participating farmers," explains Peter Minow, Managing Director of Avebe Stärkefabrik Prignitz/Wendland GmbH. "It increases the whole value chain of starch potatoes. The price of the starch potato is rising, bringing it









closer to our strategic target of a of a performance price of € 100 per tonne. By producing potato protein, we strengthen the competitive position of the starch potato compared to other crops such as cereals or sugar beet. The starch potato therefore remains an important crop for many farmers in the region and beyond."

Modern production of a new raw material

Before the potato juice is heated for protein production, it undergoes pre-treatment in Dallmin, Minow explains. "The potato juice is first concentrated in a modern ultrafiltration plant, so less fluid needs to be heated for protein production. Thanks to the ultrafiltration system, energy consumption in the first stage of protein production is significantly more efficient, meeting Avebe's strategic sustainability goals and reducing its carbon footprint." The concentrated potato juice is heated so that the protein solidifies and can be separated from it. The protein is then dried at 230 °C and finally transported in a silo. Minow: "This is an important alternative to imported soy in animal feed, for example. The potato juice from which the protein is extracted is then used as fertiliser by farmers

in the vicinity of the factory. That is how we add value to all parts of the potato. It is also a very good example of circular production."

Ready for the future

By investing in the Dallmin plant, Avebe is sending out a signal to growers, employees and service providers that the starch potato crop in the region is future proof, providing planning security for all parties involved. Peter Minow is convinced of this: "Starch potato processing has a very good future at Dallmin. This secures the farmers' income in the long term." With the new method for processing potato juice for protein production Avebe is taking another important step towards an environmentally friendly and sustainable future.

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While production is continuing, we will build the factory and prepare the new production line.





Gasselternijveen expands

Avebe has been working since 2007 at the production site in Gasselternijveen on the development of potato protein for food under the name Solanic. This protein used to be a residual product that was disposed of, later it was used as animal feed and nowadays plant-based protein is an integral part of our diet. Edwin de Jonge, Site Director Gasselternijveen, talks about this product and the challenges surrounding the new building.

Growth in good food

"The development of Solanic aligns perfectly with Avebe's growth strategy: 'Growth in good food'. Over the past two years, we have focused strongly on increasing the productivity of the current lines. With the existing lines we were able to expand by no less than 27 percent, thanks to good cooperation between the production, process technology, maintenance and research & development departments. This is a great result, but the market for Solanic in plant-based dairy and meat applications is growing rapidly. To meet current and future demand, we need to expand capacity in the form of new buildings."



The run-up to the new buildings

"A lot of hard work has gone into obtaining the necessary permits to expand the capacity for the new Solanic lines. In March we received a definite green light and all the permits from the competent authority were granted. The whole process has been successful, thanks to solid communication and a good relationship with the province of Drenthe and the surrounding area."

Several challenges at once

Edwin continues: "The next challenge: while we build the factory and prepare the new production line, current production will continue to meet market demand. Our WCOM teams help us to produce significantly more, improve quality and also reduce variable costs. WCOM stands for World Class Operations Management. and is a structured method for improving and anchoring business results, particularly operational results. The pressure is high, the operation considerable, but a CSU (commissioning start up) team meets weekly to slowly work towards the September start up. That's how we keep everything on track."

An extra challenge: the coronavirus

"So far, we have maintained the corona measures very strictly. This will become even more important in the coming period: with both the intercampaign - the period between the potato processing campaigns - and the new building project we will be dealing with the arrival of many external workers. That is why we make sure we stay on top of enforcing the corona measures. It's vital to avoid infecting each other, for both the health of our people and the progress of our production and projects."

Planning is everything

"We aim to be fully operational in the first few months of the new campaign. So far everything is going according to plan and I'm really looking forward to working on this with everyone!"

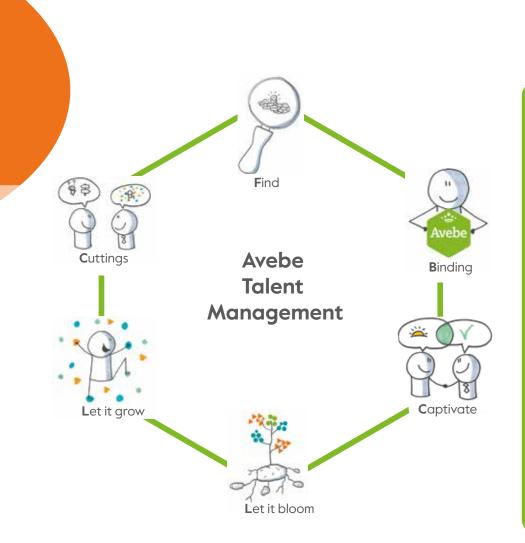
Develop your talents at Avebe.

At Avebe, we extract everything to be had. That also goes for our employees. That is why we have launched the Talent Management Community: a programme in which participating employees are linked to a mentor who helps them grow in their career.



If you are open to change, the best you can become is yourself! One of the participating mentors is Bas Wijnbergen. He is currently our Procurement Director, but did not start in this department. He talks about the growth in his career, how he was able to make progress and offers some tips to colleagues.

"I studied Chemical Engineering at the University of Groningen. I remember when I graduated I thought every employer would welcome me with open arms because I was very 'good'. After all, I had graduated with an 8.5/10, been on the board of the student union and had studied at Kings College in London for six months. But the job market for recently graduated chemical technologists wasn't what I'd hoped. After two months of rejections or no response at all to my job applications, I sought refuge in IT. I started at Vertis. They focus on software for food, pharmaceutical and chemical industries. Before Vertis, I was seconded to various companies, including Avebe. During my time at Avebe, a vacancy arose for a Process Technologist at the rolling mill in Foxhol. The site manager asked if I was interested in the position. That's how, after three years of IT, I started as a Process Technologist at Avebe. Another three years later I became Operations Manager in Foxhol. In between I worked for Avebe in China for four months. After the transformation to a functional organisation in 2005/2006, I became Supply Chain Manager. At first only for production planning and



Keep growing

Who are you, what can you do and what do you want? That is what Talent Management is all about. We'd love to help you find this out. Get to know yourself in the online Talent Manager test and create a development plan. Do you have career ambitions? Steps in your career can be made horizontally or vertically, and you can even take a step back. Discuss your opportunities to develop and grow with your supervisor. In My Talent (part of My HR) you will find job profiles/competencies and the Talent Management Policy. Do you have any questions? If so, please contact Nadieh Mulder, Specialist Learning & Development, or Giena Klaassens, Director Talent Management.

warehousing, but after a few years also for the S&OP process. In the last three years of this role I was also appointed Utilities Manager. I have been Procurement Director since 1 January 2018. In this role I'm involved in the strategic purchasing process of Avebe, I do business with all kinds of contacts from both the Netherlands and abroad and I am involved in projects such as the solar farm near Gasselternijveen. I have also been involved with WCOM."

Never too old to learn

For each job change, Bas followed training courses in his spare time. He believes it is important to keep investing in yourself and to challenge yourself to remain valuable to your employer or society. "Having a goal is good, but the road to

it is perhaps more important and more fun. That's why it's so important to keep moving in terms of development. Take the initiative yourself. It's good to be open to change."

"I remember when we worked with 'results-accountable teams' at the rolling mill. The focus was on how you can work together effectively and also share responsibility for the result. This made me realise that a company is not about you being 'good', but about you performing well together. To truly collaborate, you must learn to show your vulnerability, to trust others and give credit where it's due. I got a lot out of this and am still learning."

It's good to know what your core qualities and weaknesses are. "This is quite difficult

to work out, but it helps if you take the initiative and are open to feedback from others. It's useful to understand how your behaviour comes across and how it affects others. With this insight you can create awareness and then do something with it. It could be that this process leads not to a managerial role, but rather a specialist role because you enjoy solving complex issues. My advice is to also add value to your HR interview by discussing this with your manager. This is an important part of your HR cycle for good reason. But maybe I should end with the first step: if you're open to change, the best you can become is yourself!"

Visual identity 2.0

Too much ambition for one shape or colour.



Marieke Kanon, Communication Manager

"In 2019, Avebe celebrated its 100th anniversary and we received the Royal Warrant. That is not something awarded to every company, so it is something to be proud of and shout from the rooftops! In that year we added the royal crown to our logo. A recognition of the past 100 years and a confirmation of our history. But there is more than history to Avebe. We have developed and we are a company with many ambitions in terms of innovation and sustainability. We believe that our visual identity should reflect these ambitions. That's why we have reinstated the orange 'Solanic' colour, added a blue colour and two new shapes. The combination of shapes and colours tells the story of what we stand for and where we want to go."

Stienke Nijland - Communications Employee

"Our corporate identity now consists of six fixed elements: three colours and three shapes. First of all we have the existing green colour and the hexagon shape that represent Avebe. This colour and shape are complemented by an orange arrow and a blue sphere shape. The arrow stands for 'innovation', for progress. The orange colour is a reference to the orange of Solanic. The sphere stands for sustainability and the planet, the blue being a reference to nature and water. If you connect the elements together, you get our payoff: Innovation by nature. The different forms are often combined. This is how we depict interconnection and connection through collaboration."

Since this spring Avebe has had visual identity 2.0. With extra colours and shapes Avebe is expressing its ambitions and highlighting the pay off *Innovation by nature*. Marieke Kanon, Ria Tinga, Louise van der Meer and Stienke Nijland of the Marketing and Communication departments tell the story of the new identity.





Louise van der Meer - Marketing & Communication Specialist

"The new colours and shapes of the corporate identity are very eye-catching. It feels familiar and yet also new. But above all more contemporary, more modern. When introducing the new style, we mainly focused on adapting marketing materials, such as leaflets, business cards and, of course, the website. We are not changing forms or packaging. Of course we are supporting our colleagues in the application of the new elements. They can enable the 'Templafy' tool in their Office programmes to easily adapt their documents to the new style. The first templates are available and we are continuously adding to them. There is also a lot of information on Sharepoint to help our colleagues find their way. We also provide training and there is a short video with a more detailed explanation. Do you have any questions? Feel free to send them to communication@avebe.com!"

Ria Tinga - Marketing Director

"When we were adapting the visual identity, we deliberately opted for an extension of the corporate identity rather than a complete change. We are proud of who we are and what we do. As with the strategy, we build on what we already have, on our strong foundation. Never before have we visualised so strongly what we stand for: Innovation by nature. The new colours and shapes help us to tell the Avebe story better. That Avebe has become an innovative player on the world market. A company that creates solutions, thinks along with the customer and considers sustainability to be of paramount importance. Avebe is taking steps towards the future on all fronts. We are ready! Here's to the next 100 years!"

"Mixers in Turkey are an important tool to add value."

Avebe Nişasta in Izmir (Turkey) produces blends and packaging for the textile and glue industry. Ebru Türer works there as Blending Manager Industry Division. She talks about her work and how her division contributes to Avebe's strategy.

What does your job as a Blending Manager entail and what does an average working day look like for you?

"At this location, I am the only Blending Manager. We have two mixers, one packaging machine and four warehouses. We work closely with the sales department to respond effectively to the wishes of the customer.

My job is highly varied. For example, I make the production plan for the whole day and make sure it is followed. Both the products we import and those we produce ourselves are stored in our warehouses. We make mixtures and packaging for the industrial products. The starch for the food industry, that is imported from the Netherlands, is only stored here.

If a product does not meet the specifications during mixing, I adjust the process. Then the approved and traceable products are packed, stored and shipped. If there are any breakdowns in the mixers or packaging machine, I make sure that they are repaired and I check the work of the colleagues who operate the machines. As well as my everyday duties, I am responsible for meeting and securing ISO 9001 2015. Work safety and safe working conditions are a priority here. I check that employees are taking the required precautions and provide training."

How long have you worked at Avebe?

"I started at Avebe in 1996 and I have held several positions. I started in 1996 as a Production Supervisor. In those days, starch was used exclusively for food and the factory only packaged products. There were not even recipes for mixtures yet. I therefore studied all sectors in which starch was used, the differences between native and modified starch, the various applications and the trade name of each product.

To produce the blends the market demanded, I conducted

laboratory studies and customer trials. It took a lot of time, but during these studies I built relationships with customers and their confidence in our company grew. That's how we created a wide variety of products with which we could compete with other suppliers in the market. Between 1999 and 2008 I was an Account Manager responsible for Avebe Niṣasta's adhesive sales in Turkey and Israel and since 2008 I have been working as a Blending Manager."

How does your division contribute to the Avebe Binding and Building strategy?

"The blending facility in Turkey has proven to be an especially valuable tool to add value; we offer blends in a bag, to both the textile and glue industry. We provide affordable products and are competitive in the market. This way, we also ensure good sales for the products Avebe produces in the Netherlands. It is precisely because of our efficient working methods and ability to respond flexibly to customer requirements that we can compete with local corn starch.

Avebe leads the market in focusing on sustainability as part of its business strategy. Here in Turkey, it is especially important in this context to support customers and invest in this topic. Targets have been set in order to reduce our carbon emissions. For example, in Izmir we only use electricity in our production process. We use no gas and have no liquid waste products. We only have paper bag waste here that is recycled.

As an international company, Avebe makes a significant difference in the market through its diversity and size. I have had the opportunity to work in various positions within the company. In fact, I like everything about Avebe, I am happy to be part of it."



Innovation is in our DNA.

"By 2050, the world's population will be
IO billion people, all of whom we need to
feed. I believe we can do that through innovative
solutions, such as plant-based alternatives, which
is what we're doing at Avebe."

Gerard ten Bolscher, Managing Director R&D, recently said this in an interview with Change Inc.

"Our ingredients in meat substitutes are a good example of these plant-based alternatives. Our products can be found in burgers of various meat alternatives suppliers, both in Europe and America. We have also developed a paté that is similar to real liver paté. How is that possible? Of course the flavour gets you a long way, but with our products we can mimic the structure and mouth feel of meat products, making the meat substitute virtually indistinguishable from the real thing. That's innovation."

More value

Avebe is not only innovating in the field of meat substitutes, Gerard continues. We also improve and innovate meat products by adding more value. "With our new blends of potato starch and protein, combined with healthy plant-based fat, we can reduce or replace the fat in meat products. The product is cholesterol free, has a low saturated fat content and high polyunsaturated fat composition.



Gerard ten Bolscher, Managing Director of R&D

Saturated fat increases the risk of cardiovascular disease. This is because it can cause the bad LDL cholesterol in the blood to rise, which can slowly clog blood vessels. Unsaturated plant-based fat lowers the cholesterol level in the blood and thus reduces the risk of cardiovascular disease. Unsaturated fat also provides the essential fatty acids that the body cannot

make, but which are necessary for good health. So with our solutions, we not only add more value to the product, but also to the health of the consumer. And that's not all: our products are also anti-allergenic. This means that our potato proteins do not cause an allergic reaction. That's unique to plant-based nutrition."

Healthy nutrition

Avebe considers it important to have an impact on the health of consumers, Gerard explains. "Our ambition for 2023 is to have a positive effect on the lives of more than 500 million consumers by promoting their health, well-being, prosperity, and environmentally friendly lifestyle. That's why we innovate and invest in healthy alternatives. Of the total value of our food products, 25 percent goes to healthy nutrition. This share is expected to continue to grow in the coming years. In the past five years, we have doubled the number of patents on healthy food.

Everything plant-based

Avebe also has plant-based alternatives for dairy products. For example, there are solutions for plant-based yoghurt, puddings and ice cream that provide a creamy mouthfeel and texture. There is also a new concept for plant-based milk that has a new flavour and is sustainable and healthy. "A unique innovation in dairy is our slow melting ice cream. An ice cream that keeps its shape at room temperature, without melting, for twenty minutes. Ideal for children to enjoy an ice cream without making too much mess. And what about cheese? We love it, but what if you want a vegan lifestyle? Or are lactose intolerant? We have responded to this with solutions that are now used in plant-based feta cheese and a plant-based cordon bleu. We have also invented a plant-based cheese topping for pizzas. And if you look at the ingredients list on a packet of grated cheese, you'll see that the milk has often already been replaced by potato starch, among other things."

Clean label

Gerard: "We continue to develop. We are working on the development of a wide range of *clean label* starches. Our clean label starches do not contain any E numbers. We use these starches in many applications such as soups and sauces, puddings, dairy and dairy-free products, meat products and meat substitutes."

Sustainable chain

But innovation goes beyond products, Gerard continues. "We consider the entire supply chain. How can we make it as sustainable as possible? As well as focusing on sustainability in our own processes, we also look at what our ingredients do in the value chain. We already reduce more carbon emissions in the chain than in our own processes. And we focus on transparency.

Where do the potatoes come from? Where do they go? Transparency shows customers and employees the impact we have on the environment and how we deal with it."

Innovation culture

But transparency does more. By being transparent to its customers and partners, Avebe creates more engagement, and that leads to great performance. This creates a real innovation culture, explains Gerard. "We express this culture of innovation in the best possible way because we have established our Innovation Centre on the Zernike Campus in Groningen. Here we work together with the University of Groningen, Hanzehogeschool, clients and partners. And because we have moved our research & development and marketing and sales departments here as well, we can communicate quickly about our new innovations and work in a market-oriented manner. We find this cooperation important. Because innovation is something you do together. Not only between colleagues, but also in the chain: from field to customer, from grower to end-product. Together we create value by focusing on solving issues related to the wellbeing of people and the planet. All based on the potato. Innovation by Nature," concludes Gerard.



Our ambition is to have a positive impact by 2023 on the lives of more than 500 million consumers.



Preparations and the impact on Avebe's logistics chain

In 2020, Avebe could transport cargo to Zevenaar as easily as to Exeter. But since Brexit, the logistics process has become a lot more complex. How did Avebe prepare? We talk to Chris Lahpor, Avebe's Customs & Trade Specialist at Avebe. Chris is the expert in the field of customs matters and guardian of the customs processes. Together with his colleagues from Transport and IT he managed the process changes within Avebe's logistic chain towards its customers in the United Kingdom.

What did Avebe face in the run-up to the Brexit?

"Avebe transports around 35 cargoes a week to the UK. Since 1 January this year, we have had to deal with export and import formalities. Our preparations were mainly in the process of sharing information between us, our carriers and our customers. So: how and at what point do we collect all customs data for each individual export shipment and when do we send this additional 'Brexit shipment notification' to both our carriers and our UK customers or their customs agents? A true IT project for which we fortunately already had a lot of knowledge, software and experience available. Registering the right data in our SAP information and management system played an essential role in this."

Could Avebe's sales in the UK continue as planned?

"Ninety per cent of our sales to

UK customers are made from the Netherlands, through direct sales. For the remaining ten percent, we have transformed our subsidiary Avebe UK Ltd to enable sales within the UK. Because the United Kingdom is no longer an EU country, it is better from a VAT point of view to stop holding stocks in the United Kingdom itself. In the autumn of 2020, this UK sales organisation was set up in our SAP system by our colleagues from Finance, Warehousing and SAP support. We already had our own warehouse in Grangemouth (Scotland's largest container port) from where we supplied

Our automated systems were already well advanced and we had everything in place on time.

a number of customers quickly and efficiently. This warehouse is now supplied via Avebe Sales in Veendam to Avebe UK Ltd."

It sounds like everything went smoothly.

"From our side, it did. Our automated systems were already well advanced and we had everything in place on time. We were already able to make interfaces between different systems, and we have a lot of experience in the field of customs clearance. But for things to run smoothly, our customers and their customs agents must also have their affairs in order and be able to respond quickly. Ewals, one of our transporters, had several delayed customer deliveries in the first few months of this year. Customs agents of these customers could not cope with the many (new) jobs and orders, so that goods were not immediately released by English customs. This was caused by the lack of capacity and knowledge among these brokers."

Are you not dependent on that?

"No. Brokers are customs agents on the side of the customer, the importer. They are paid by our clients and handle the English import formalities on their behalf. This is called 'clearance' and is not really our responsibility. Of course, as a supplier, we do have to deal with this when delays occur at the ports because customs clearance is not fast enough.

Not just anyone can be a customs agent: it calls for permits, expertise and the right software. In the run-up to the Brexit, there were thousands of vacancies for brokers, and all of those people had yet to be trained. There was far too little capacity and not enough knowledge."

But Avebe had no difficulties?

"Once our goods arrived in English ports, during the first few months it often took a relatively long time for our customers' brokers to clear the shipment and declare it to English customs. The trailers of our transporters were therefore often stuck in the ports for too long. So although customs clearance on the UK side is the responsibility of our client, the carrier ended up bearing the brunt of extra costs due to delays. During the first period, carriers called our Sales colleagues a lot to speed up and expedite customs clearance. They spent a lot of time in that initial period solving and assisting with individual problems in the UK. Ultimately, we all want the complete transport chain, including border

The logistics chain to the UK



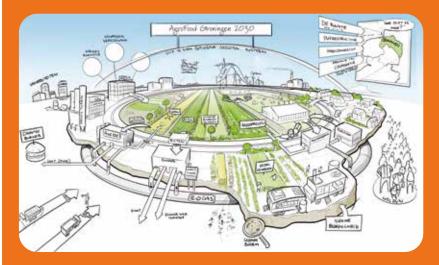
formalities, to be handled correctly. That goes for the importer, the carrier and us as a supplier."

How do you see the process in retrospect?

"We spent a lot of time preparing and our processes ran smoothly from the beginning. Unfortunately we could not prevent waiting times and delays, this was beyond our control and in line with expectations. Since mid-March we have seen improvements in handling on the English side and our goods are being cleared more quickly by the brokers. All in all, I don't think we could have done more.

A number of our carriers commented that Avebe is an example of how customs matters have changed as a result of Brexit. That is something to be proud of!"

% fascinatingThe agricultural sector of the future



The world population continues to grow and needs more and more food to sustain it. Meanwhile, agricultural land is becoming more and more scarce. To continue to meet the demand for food, things have to change. That is why Avebe is participating in the Fascinating project.

Fascinating stands for Food Agro Sustainable Circular Nature Technology in Groningen. The goal of this project is to bring about a circular agricultural system that balances sustainability, nature, healthy food and economic impact. This will call for a protein transition. We can get more value out of food, give it back to nature and contribute it to the economy if we are more efficient with the proteins we produce. We at Avebe are already doing this more and more. Potato proteins are in fact highly suitable for use in meat and dairy substitutes. With Fascinating we take these developments a step further and look at how nature and climate can benefit from them.

Would you like to stay informed about Fascinating? Please visit www.ispt.eu/projects/fascinating

Royal Avebe takes part in ReThink Protein Challenge 2021!

Royal Avebe is taking part as a coach in the second edition of the ReThink Protein Challenge. The challenge is initiated by Wageningen University & Research.

It challenges students to come up with an idea or prototype that will help provide enough protein to 9 billion people in a way that is healthy, affordable and good for the planet.

Avebe is supporting four teams with their plan. By participating in this event we aim to share with the students our experience and expertise that we have built up over the years in adding value to proteins as an agricultural by-product. This is how we contribute to the protein transition and help teams take that extra step to deliver a successful product or prototype.





New equipment for the Innovation Centre

Thanks to our new Research & Development machinery, even more research can be done into the application of ingredients from the starch potato.

Pilot extruder

The arrival of a pilot extruder means that more research can be done on new product development. Extrusion is a technology which enables us to respond even better to the growing demand for plant-based products. Another step has been taken in Avebe's sustainability strategy: the extruder reduces our carbon footprint considerably.

Homogenizers

The new homogenizer has a larger homogenization range and the ability to aseptically fill prototype applications, such as plant-based alternatives to dairy products. This guarantees the structure and quality of the products. We have also invested in a second homogenizer for the development of potato-based ingredients and their application in emulsified systems, such as sauces and mayonnaises. These investments were made with the support of the EAFRD (European agricultural fund for rural development).

Hybrid breeding of starch potato varieties:

respond more quickly to prevailing conditions.

Hybrid breeding in potato cultivation was still no more than a promise in the past, but has now developed into a proven concept for the production of consumption potatoes. The time is now there to use the technique for breeding starch potato varieties, say Johan Hopman of Averis and Edwin van der Vossen of Solynta. In April, both companies signed the contract for a joint development platform. The first plants to be crossed with each other are already in the greenhouses.



Edwin van der Vossen of Solynta

For over ten years, Solynta, the hybrid potato breeding company from Wageningen, has been working on obtaining Hybrid True Potato Seeds (HTPS); a technical revolution that makes breeding much faster than with the traditional breeding methods using tubers. It took time to overcome some major obstacles, but the efforts led to the development of a platform in 2018 that allowed the new technology to be deployed. "From then on, we could build on improving genetics," says Solynta R&D Director Edwin van der Vossen.

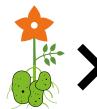
Scepticism

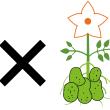
Five years ago Johan Hopman, manager of Breeding & Research at Averis, was still very sceptical when hybrid breeding was discussed. Those days are over. "Now that the results are so visible, it was time to enter into a collaboration that would also make the technique available for starch potato varieties." Edwin adds: "With the collaboration, Averis' specific knowledge of traits and genetics for starch potato cultivation comes together with Solynta's technology for hybrid breeding. Together we continue to build on the development of improved potato varieties for the starch industry."

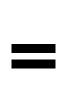
More than the promise of bringing varieties to market faster, it's about taking bigger steps in the breeding process, Johan explains. "Averis has a strong history of crossing for new resistances, but that can easily take fifteen to twenty years. With hybrid

Current breeding of seed potatoes





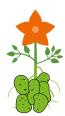






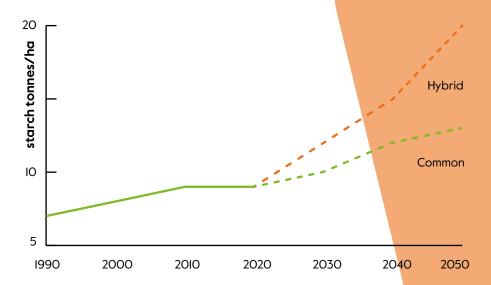








Faster progress with hybrid breeding





Johan Hopman of Averis

breeding the process can be many times faster. In that case you're talking about roughly five years."

Controlled blending

Edwin: "With hybrid breeding you can mix genetics in a very controlled way. Once you've found something good, you can keep that, and then build on it. Johan: "In conventional breeding you have two good varieties with a combination of genes that works well, but when you cross them you throw them back together completely and basically have to start from scratch." He continues: "We won't be growing an end crop directly from seed. This will greatly accelerate the build-up of seed potatoes, which now takes four to five years. With HTPS, the initial sowing is many times greater. This affects the seed potato chain but not the Avebe grower

directly, who will continue to receive seed potatoes as usual. It is expected that he will change varieties much more often. As progress accelerates, a new generation of varieties that stands out from previous generations is likely to come to market every few years."

Challenges

According to Johan, the breeding method can mainly contribute to making the cultivation of starch potatoes more sustainable. "We can respond to challenges faster. By making effective use of fertilisers and less crop protection, for example, but also regarding the increasing alternation of dry and wet, warm and cold periods, and diseases such as phytophthora, potato cyst nematode and wart disease, which are adapting ever faster to resistances. With conventional breeding, these changes

remain significant challenges. Ultimately these factors together determine whether our potato cultivation can continue in the future. We can respond to that much better with the platform for hybrid breeding."

Curious about the role of Averis and how potato varieties are cultivated? Check out the Averis-video on our YouTube channel 'Royal Avebe' or scan the QR-code below.



Hybrid breeding





















State of the art water boiler for AB Stadex.

CO₂ and water reduction are top of mind at AB Stadex, Avebe's site in Malmö. The location contributes to the sustainability goals of the company as a whole in various ways. One of these is the installation of a state-of-the-art electrical boiler. Technical manager Håkan Nebréus is proud of his team's achievement and Avebe's corporate strategy. "Our location is completely emission free at this moment: not one single ton of CO₂ comes out of the chimney."

Håkan is responsible for the sustainability targets and projects at Avebe Stadex. When it comes to sustainability, Håkan and his team focus on CO₂ and water reduction. Avebe Malmö, located in the middle of the city, follows the same targets as Avebe as a whole, but also those set by the Swedish government and Malmö city, to be completely CO₂ neutral by 2030. "This led to the decision to Bind & Build within Avebe, but also with other stakeholders", explains Håkan. "And, very un-Swedish, we decided nine years ago that we should be the best, also when it came to reductions."



The team at Avebe Stadex, led by Kenneth Ekborg, external project leader AFRY, Bo Malmborg electrical and Jan Stromberg Utility has now achieved one of Avebe's sustainability goals: the reduction of $\rm CO_2$ emission. The team opted for an electrical boiler to further reduce $\rm CO_2$ emission. More than 50% of Sweden's energy production comes



Kenneth Ekborg, Bo Malmborg and Jan Stromberg.

A reduction of thirty per cent compare to the base year 2017/2018.



Avebe Stadex in the middle of city Malmö.

from fossil free hydro power. "This hydro power enables the production of steam within our factory", says Håkan. "Steam used in our production process was first produced in a fossil natural gas boiler. We saw an opportunity to translate this into CO, neutral electricity."

"So, one year ago, we decided that we should purchase an electrical boiler with a 40% subsidy from the Swedish energy program "Klimatklivet", Håkan continues. "The advantages are that our CO, emission is reduced, but we also save energy because an electrical boiler is more efficient. This contributes to the performance price because the cost price of our products has decreased. Our electrical boiler alone represents a 2% decrease of Avebe's total CO, emission. And, very importantly, we now have the knowledge about installing such a boiler, which we will share within Avebe. For example with our colleagues in

Gasselternijveen and Ter Apelkanaal, who are about to take the step to install a boiler like this. Another way to contribute to our corporate strategy."

Record time

"This project was a record, even for us", says Håkan, looking back. "We got the 'go' for our boiler in the middle of the first corona wave in 2020 and we got it up and running, from order, installation to commercial power, within eight months. I fully credit our fantastic team for this achievement, especially when you take into consideration that the ordering time alone was 6,5 months. The electrical boiler went into operation on February 16th. I dare to say that we are the first CO neutral starch factory in the world. Avebe Stadex and Avebe can be proud to leave this behind for future generations.

Water reduction

Much water is used in the production of

starch. Avebe Stadex has achieved part of Avebe's strategic target of 20% water reduction already with its new washing line. The team, lead by Mats Alklint and Björn Sjöblad, the improvement team and production operators, managed to trim down water consumption way above expectation. "Avebe Stadex has already achieved 30% reduction compared to the base year 2017/2018", says Håkan. "Obviously, we are very proud of this. And I am proud of working at Avebe."

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