

DIGITAL TRANSFORMATION

Mählmann Gemüsebau feat. traceNET & PECS

Pilot Launch: Q4 2024 – Test installation of one line for feasibility assessment

Project Start: Q1 2025 – Installation & configuration of the infrastructure (terminals, interfaces, LAN infrastructure, WLAN, etc.)

Go-Live: June 2025 – Evaluation of additional requirements & opportunities

Mählmann Gemüsebau, one of the largest vegetable producers in Germany, recognized the need in 2024 to improve the traceability of its entire product range. In cooperation with activeIT, the company launched a comprehensive digital transformation that goes far beyond the topic of “traceability.” In the interview with Mählmann Gemüsebau (Tim Frye – Head of IT & Strategic Project Manager & Johann Hülsmann – Operational Project Manager), you will learn more about decisions, challenges, progress, and why this project will never be completed.



GOALS

-  Increasing the transparency of the entire value chain
-  Increased efficiency
-  Long-term competitiveness
-  Reduced workload
-  Reduction of errors

SOLUTIONS

- traceNET**  ERP system for food-producing companies specialising in fresh produce (fruit & vegetables)
- PECS**  Centralised system for employees, production performance & machine control
- GO!App** Mobile addition for traceNET & PECS for Android & iOS devices
- LiveApp** Real-time overview of all processes & procedures in the company

INTRODUCTION OF A NEW ERP SYSTEM OR "THE SEARCH FOR TRACEABILITY"

With the implementation of the ERP system traceNET and the Production Efficiency Control System PECS, Mählmann Gemüsebau launched the largest IT project in the family business's 42-year history. Where previously various stand-alone solutions and error-prone, manual processes determined the daily work routine, a comprehensive system now ensures increased transparency, error reduction, increased efficiency and long-term competitiveness.



Mählmann Gemüsebau GmbH & Co. KG
Im Siehenfelde 13
49692 Cappeln
Deutschland
www.maehlmann-gemuesebau.de

- one of the largest vegetable growers in Germany
- Since 1983
- Family business in the second generation
- From broccoli & iceberg lettuce to various types of cabbage & celery to bush beans & pak choi



Johann Hülsmann (left), Tim Frye & traceNET in the background

Tim Frye: The driving idea behind the introduction of a new ERP system was the traceability of our products from the field to the customer, in our case the ELO eG. Up to now, handwritten notes attached to the respective pallets were used to document the path of our products through the supply chain. This led to the desired traceability being lost at some point. So, we started looking for software providers that cover the topic of traceability in the food industry, specifically in the fruit and vegetable sector.

At first, our search was unsuccessful, as there was no specialized traceability software for our industry. We wanted to change that. We invited five selected software providers to our company, conducted interviews, held workshops, and mapped processes. During the selection process, it quickly became clear that, unlike the other software providers, activeIT had a fundamental understanding of the fruit and vegetable sector. Initially, however, we decided to go further in-depth with another provider. We soon realized that although this large company had extensive time and personnel resources, it was not able to respond to our dynamic processes. We then intensified our collaboration with activeIT. Thanks to their industry knowledge in vegetable production, the workshops were significantly more efficient and required minimal explanation, which ultimately convinced us to implement the "traceability" project with activeIT.

In the subsequent project phase, many other opportunities arose alongside traceability to improve our processes.

PROJECT PROCESS & CO-OPERATION WITH activeIT?

Tim Frye: Our project process is very dynamic and fast, thanks to the groundwork we did in advance. We developed a classic six-pillar principle, but we did not always stick to it strictly and instead reacted flexibly. For the further course of the project, we are not planning one specific module in detail until the end of the year; rather, together with activeIT CEO Marko Klein, we are creating a roadmap. This defines the topics for the coming year and prioritizes the milestones.

Of course, there are always shifts in priorities here as well, similar to the beginning of the project. It is precisely this flexibility – moving milestones forward or pushing them back based on various insights – that makes everything so dynamic and efficient. That is why – and especially because of the intensive preliminary work – we have reached our current position at lightning speed.

Johann Hülsmann: When it comes to support, we also feel very well taken care of by activeIT. In our day-to-day operations in the field, we

quickly recognize what works well and what doesn't. If errors occur, we contact activeIT, who immediately ensure that our operations continue to run smoothly. Communication is virtually perfect. Tim Frye and Andreas Reiterer (traceNET Head of Consulting) handle peak workloads excellently by quickly deciding what is technically feasible. And if we place too many demands, we quickly find the right path forward together.

PROJECT PROGRESS & CHALLENGES?

Tim Frye: In a project of this magnitude, you experience many highs and lows. At the beginning, progress was slow because we had to install the system at the foundation. One of the biggest challenges was the digital mapping of the harvesting processes from the field to the Mählmann production facility or directly to ELO. As already mentioned, there was no ready-made solution for this. Together with activeIT, we mastered this challenge by aligning many theoretical considerations with practical field experience and implementing them into the modules.

Of course, there are always new challenges and milestones, but in the past few months we have achieved more than in the previous months, when a lot of groundwork was being laid. The rollout of the latest milestones has triggered a real digitalization boost, which is highly motivating – it's actually a lot of fun!

EMOTIONAL ASPECTS?

Tim Frye: Project progress takes place on a technical, process-related, and also emotional level. In some phases, progress is less visible, which can be very frustrating. Even though no immediate improvements can be seen, intensive development and testing are taking place in the background. Only at the rollout does the big leap forward become apparent. That's why it is important to stay on track and not let setbacks discourage you, because the successes usually outweigh the low points – which is highly motivating and also moves you forward on an emotional level.

EMPLOYEES' REACTION TO THE INTRODUCTION OF DIGITAL PROCESSES?

Johann Hülsmann: At the beginning, there was some skepticism toward the new processes. But using the truck drivers as an example, we quickly realized that the new, clear structures drastically reduced the error rate. In the past, delivery notes had to be written by hand and the trucks were loaded by different people. Naturally, this led to mistakes. Today, each driver is responsible only for his or her own truck and simply has to send off the digital loading lists. This reduces paperwork and makes the job easier.

The initial skepticism soon turned into acceptance and even enthusiasm. Our employees came to us asking when the digital processes would finally be introduced in their halls as well, so they could benefit from the improvements too. At the latest, this was the moment we knew that the transformation had been well received.

Tim Frye: Our employees cooperated very well overall, even when the traceNET GO! app was introduced at the beginning of the year. In parallel, our old system was still running for various tests, which meant additional effort for our field supervisors. Their clear feedback helped us improve these processes. In June, we fully switched to the GO! app, and the transition went smoothly. Our staff actively contributed to this success.

DATA QUALITY AND THE STANDARDISATION OF PROCESSES?

Tim Frye: What we still need to improve is data quality and the sense of responsibility in our production areas. In the future, we plan to link pecsLINE with our payroll accounting. Currently, this data is entered manually into PECS, so it should be reflected there 100%. Unfortunately, there are still inconsistencies, which is why it is very important to raise awareness of data quality and to provide better training for our supervisors so that they know exactly what to pay attention to.

Our major goal is to establish clear and standardized processes. In our company, there are many experts for different crops, each with a precise idea of how their processes should run. For iceberg lettuce, this process differs from broccoli or lamb's lettuce. Our approach is to digitally record all crops and ensure that the developed process can be applied uniformly across all of them. In some cases, this means adding two process steps for one crop in order to remove one step from all the others – which overall leads to significant simplification and increased efficiency throughout the operation. This standardization also ensures, for example, that a supervisor

does not need to learn a new process when switching from one crop to another. The structures remain clear and scalable, which represents a decisive factor for this project.

TARGET AND ACTUAL AT traceNET?

Tim Frye: At present, we have implemented around 80% of the value chain in traceNET, although we will never reach 100%, since there will always be new technological innovations or market requirements. The project will therefore never really end. (laughs)

From today's perspective, what we can still improve is saving a few clicks here and there or adapting the GUI. Another topic is the data quality that, as already mentioned, is not yet fully embraced across the board.

Johann Hülsmann: That's true, but one should not overlook the fact that it was and still is a major change for our employees, especially for older supervisors. At the beginning, they had difficulties even unlocking their mobile devices, but now they are managing well with the GO! app.

TARGET AND ACTUAL FOR PECS?

Tim Frye: We have achieved about 90% of what we set out to do with PECS. A great deal of preparation was necessary here as well – preparing the halls and lines, WLAN coverage, LAN infrastructure, various interfaces, stable touch panel PCs that can withstand high-pressure cleaners, and so on. It took months until we had the perfect pecsLINE terminal in our halls. Since March, the checkweighers have also been integrated so that we can use the pecsLINE module as intended, although we are not yet accessing the full range of module functions. We are currently working on further developments in recording user and performance data.

The topic of label printing has been put on hold for now, as it requires extensive master data maintenance that is not yet fully mature and in which ELO eG is also involved. Preparations also include infrastructure and equipment, as well as processes with our seasonal workers – also in interaction with pecsTIME.

The integration of pecsTIME was, by the way, one of the interim steps inserted due to the acute need for performance recording, which added another dynamic component to our project by enabling further digital process steps.

Our goal is to create a kind of "vegetable production franchise operation," in which all PECS modules and functions are integrated and all lines are designed to be as simple as possible, so that employees can operate the machines with minimal training time in different languages. The supervisor then becomes the control instance, ensuring that the correct film and label are used. Everything else – the master data and other printing information – comes directly from the ERP system.

HIGHLIGHTS AND MEASURABLE VALUES?

Johann Hülsmann: The best thing about PECS from a practical perspective is that for each order you can now see at a glance how many packages are "valid" and how many are "invalid." This makes it possible, for the first time, to clearly illustrate the quality of the raw materials going through our production. In the past, poor performance was often blamed on the supervisors in the halls. Now we can clearly trace who is actually responsible for rejects and poor raw material. This structured process also provides mental relief for our staff, as they no longer have to take responsibility for mistakes made by others.

Tim Frye: With the interaction between traceNET and the PECS modules – whether TIME, ACTIVITY, or LINE – along with the LiveApp, which we also use, we are creating truly measurable values for the first time. Now we have to learn how to work with them and figure out how to make the best possible use of this data. Of course, we already had various data before, but with traceNET and PECS we are generating clear data, clear numbers, and clear facts, enabling us to take our controlling to an entirely new level.

For example, since integrating pecsLINE into the halls, we have realized that there is enormous potential for saving time and costs. This had not been apparent to us before, because we lacked precise performance data. This is also one of the major factors behind the success of PECS. Just twelve weeks after going live, we are already able to draw many valuable insights.

We also need to question our existing KPIs. What are our measurable values for specific lines, for specific times, for specific orders? What is the target value? If it's better than the target – perfect! If it's below target – why? All of these aspects must now be identified, analyzed, and evaluated with the collected data in order to further improve corporate management.

Johann Hülsmann: The transparency we now have through traceNET and PECS provides us with insights we never had before. With pecsACTIVITY, the volume of personnel is now traceable with just one click. We can see clearly and neatly listed how many people are working in which departments, analyze how high personnel costs arise, and question why so much staff is being deployed in certain areas. This makes things more tangible and enables us to ask targeted questions and thus optimize processes.

THE FUTURE AND BIG DATA?

Tim Frye: With automation, we do not want to cut jobs but rather use resources more efficiently. The employee who used to spend two hours every day filling in Excel spreadsheets now has 10 additional hours per week after automation to dedicate to meaningful new tasks.

In the future, we want to provide all company data in a structured way to the departments – from performance data to top crops and top customers, all the way to top achievements. Where do we have the lowest labor costs while producing the highest volumes? Is it still worthwhile to cultivate this crop? With the collected data, we can answer these and many other questions.

Our focus is on being visionary and planning how we can expand our market share in the coming years. This is about modernizing our business processes and keeping an eye on market and customer demands. Ultimately, it is the customers who drive the food retail sector – even though sometimes it may seem the other way around – but fundamentally, consumers set the direction. If, in the future, they want to know where their purchased vegetables come from and check this via QR code, we must be prepared to secure our place in the market.



Johann Hülsmann & Tim Frye on a line with touch panel and PECS interface

THE COLLABORATION WITH MÄHLMANN FROM THE PERSPECTIVE OF activeIT

Christopher Immervoll (PECS Head of Consulting): The collaboration is very much a partnership: we listen to Mählmann's ideas, and Mählmann in turn listens to our suggestions – together, this results in a shared solution approach. It's a win for us as well, because through this exchange we receive valuable requirements and input that contribute to the further development of PECS's functionality.

Coordination, communication, and overall project management are handled centrally by Tim Frye. We've long known that this approach is essential – and Mählmann has once again proven how well it works in practice.

Andreas Reiterer (traceNET Head of Consulting): At Mählmann, you can clearly see that digitalization is being pursued consistently and at a high pace. For us, that sometimes meant simply keeping up at first. Ultimately, though, that very pace became an advantage for the project – the successes achieved show that keeping up was absolutely worth it.

Georg Josl (Key Account Manager): When we all sit down together, we usually come up with excellent solution approaches that our developers – especially Christopher and Andreas – then implement for Mählmann. Project management works well on two levels: on the one hand, when it comes to short-term issues, and on the other, thanks to ongoing communication, we always keep the bigger goals and innovations in sight.

ON-SITE MEETINGS: UNDERSTANDING CHALLENGES – DEVELOPING SOLUTIONS

Andreas Reiterer: To keep the bigger goals in sight, on-site visits are essential. These meetings are always a mix of development work and gaining insights into Mählmann's operational processes.

In theory, you can imagine a lot – but it's only on site that you truly see how things work in practice, whether out in the field or in the packing hall. That's where I understand much better, for example, why the traceNET GO! app might not respond at a specific moment when scanning pallets.

It's just as important to have a sense of what a hall looks like, so I know exactly what's being talked about when there are issues in a particular area. That's why on-site visits are so important.



Georg Josl, Key Account Manager at activeIT

INVOLVEMENT & MOTIVATION = SUCCESS

Christopher Immervoll: What's especially important for Mählmann's staff is their personal connection to the project – it's crucial for the acceptance of a new system. That's why it's essential to involve the people who work with it every day as early as possible and actively bring them along on the journey.

This project also shows that Mählmann is highly motivated to continuously improve and develop – not because they have to, but because they want to. You can sense that immediately – and it makes the collaboration all the more enjoyable.

Georg Josl: At Mählmann, everything revolves around data analysis, process optimization, and continuous improvement. That makes the collaboration very exciting – especially because you can tell that Tim, Johann, and their team really think things through and act out of their own initiative. That says a lot about Mählmann's corporate culture.

Christopher Immervoll: You can tell that people there enjoy their work – and that makes it enjoyable for us, too. Besides that, Mählmann is one of our best-case customers, because the close collaboration continuously drives the further development of PECS.

PECS & traceNET GROW WITH MÄHLMANN

Christopher Immervoll: Through the Mählmann project, PECS has undergone numerous process optimisations – for example, in terms of line leader handling and the resulting simplified registration, the blocking feature that guides employees in keeping pecsLINE up to date, or the introduction of multilingual functionality across all touch clients – just to name a few examples.

Andreas Reiterer: The same applies to traceNET, especially traceNET GO!, since around 90% of the employees work exclusively with this app. Throughout the project, many new features have been added – such as pallet-based warehouse management, complete field workflows with task execution, employee time tracking, hourly and piecework processing.

In addition, new interfaces to external systems were created, enabling the processing of harvest data and piecework information for payroll accounting. Overall, we've implemented a great deal in this area and significantly advanced the app's development. The biggest challenge was reliably handling the enormous data load. But it works – even if it did cost me a few grey hairs. (laughs)



Andreas Reiterer & Christopher Immervoll from activeIT

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activeIT
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Premstätter Straße 165 | A-8054 Seiersberg-Pirka | sales@active-it.at | +43 316 23 12 01