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ProLeiT GmbH:
Power to the pea – disruption of the milk industry

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Automation of a Chinese pilot plant for spice mixes

ProLeiT GmbH: Power to the pea – disruption of the milk industry

Milk alternatives are all the rage these days. An increasing number of people are giving up cow's milk in favor of plant-based substitutes, such as soy, oat, almond and pea drinks. Once considered a niche item, they are now hugely popular with many consumers – especially vegans and so-called flexitarians.

We are currently experiencing enormous growth in the market for milk alternatives. Young startups, in particular, are driving this development through innovative solutions and practices. As a leading supplier of process control technology, our focus in 2022 will, therefore, also be on supporting these business startups from day one in all things automation through the compact entry-level solutions of our process control systems Plant iT compact and Plant iT express. Moreover, it is true to say that startups that opt for scalable automation early on can achieve success faster and leave their competitors standing. Thanks to our highly flexible software solution, we not only grow with our customers but also provide them with valuable support and assistance to standardize and optimize their processes from the earliest possible stage. The costs for the ProLeiT entry-level solutions are recouped relatively quickly, meaning startups can expand production effectively, efficiently and skillfully.

This current mood of change is also being felt at large dairy cooperatives. Although sales of conventional dairy products are still significantly higher than those of plant-based substitutes, transformation of the market is now unstoppable and steadily gaining momentum. Many long-established companies are still on the fence when it comes to vegan alternatives, but at the same time they are struggling with declining demand for their products. Long overdue investments in automation are being put on the back burner – replacing the entire control level would simply be too costly in the current situation and the associated production downtime would not be feasible due to the full utilization of resources.



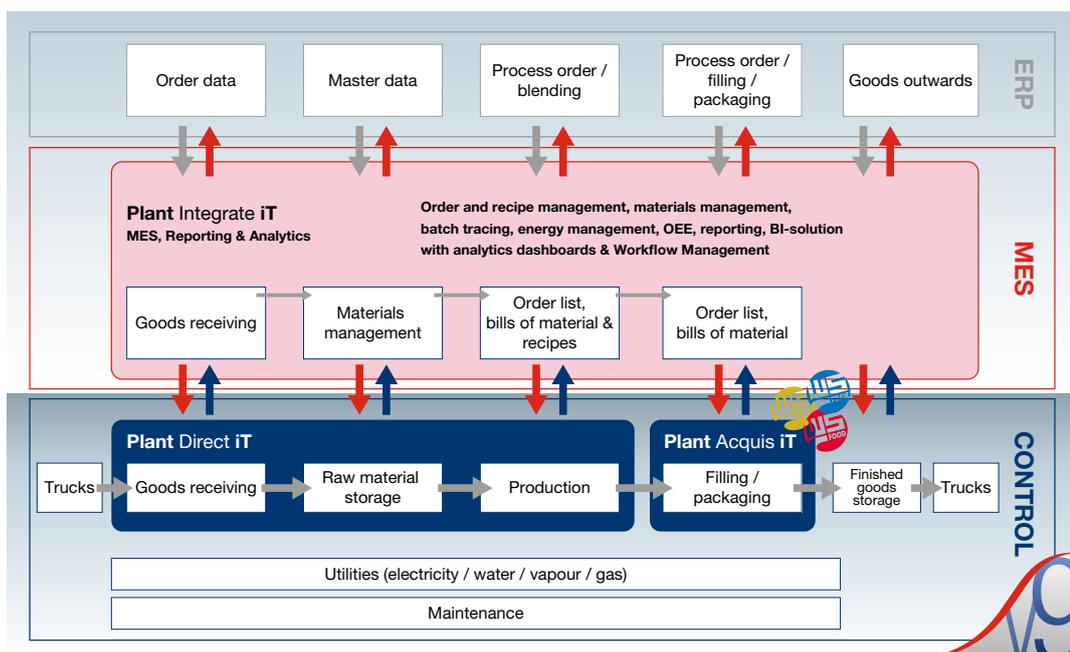
Thanks to the new ProLeiT Batch Engine, we are able to meet this challenge by introducing an intermediate level (“Orchestration Layer”) through which key topics such as cyber security and traceability can be implemented – without extensive and expensive downtime. Through the plant-wide MES reporting and workflow management system Plant Integrate iT and the optionally available add-ons, ProLeiT also offers intralogistics solutions to guarantee full transparency and permanent optimization of internal processes.

Plant Integrate iT Batch Cockpit: comprehensive batch analysis

High data availability during production gives a real competitive advantage over every rival. The large volumes of data generated during production processes often place an excessive burden on operators – correlations remain undetected and potentials unused. The add-on Plant Integrate iT Batch Cockpit from ProLeiT is a clever software solution for evaluating, processing and validating production data. Thanks to seamless integration in other functions of the MES solution Plant Integrate iT, all the data can be further processed and prepared productively.

Plant Integrate iT Workflow: workflow management

Plant Integrate iT provides an efficient MES workflow management system for production-relevant business processes. The database-supported system can be used for managing and monitoring automatic and manual processes in the production environment. This includes, for example, order processing, quality assurance (e.g. sampling) and the support of logistics processes or the collection and provision of data which arises during production and in the production environment. This data is used as the basis for production-relevant reporting and as a data source for higher-order systems.



The workflow management system can be used for the following MES areas:

- Warehouse and inventory management (e.g. product and material parameters, handling units, stock taking)
- Production management (e.g. recipe/BOM management, production logistics)
- Quality management (e.g. management of specification values)
- Maintenance and servicing (e.g. operating hour counter, machine maintenance, operating cycle counter)
- Detailed planning (e.g. planning of the filling tanks and processes upstream of the filling machines in order to use them with as little dead time as possible)

Your contact for the dairy industry: Dr. Thomas Wunderlich, Director Business Segment Beverages/Head of Sales Dairies & Beverages.

ProLeiT & Schneider Electric: Automation of a Chinese pilot plant for spice mixes

The successful Chinese business Hotpot is considered one of the leading specialists in the production of spice mixes for noodle dishes. At its headquarters, located roughly 1,500 km from the vibrant metropolis of Shanghai, the company decided some time ago to invest in a pilot plant, with the long-term goal of simulating a complete production plant.

A special aspect of the project is how impressively it illustrates the synergistic effects that arise from the interaction between the ProLeiT and Schneider Electric product portfolios. In this joint project, the ProLeiT Plant iT V9.80 process control system works hand in hand with the innovative Modicon M580 PLC controller.

Despite the small budget available for this reference project, Schneider Electric and ProLeiT were able to achieve promising results in a short space of time. In addition to the automation achieved so far in the areas of raw material processing, recipe-based production, automated mixing of spices and packaging of the end products, further functionalities can be added in the future. These include the track & trace system, or further interfaces to external systems.

