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First results in online NIR technology for the beet processing at Pfeifer & Langen.

Over the last 5 years, Pfeifer & Langen has been developing an IoT platform to optimize the sugar beet process. In the first step, the focus was on developing and adapting new sensors to control the sugar production processes from beet to silo in real time. One of the adapted technologies is the use of NIR process devices in the sugar process from beet to molasses, which provide real-time feedback on the quality of the raw material, by-products, juices in different production steps and syrups in the final sugar product. All with the intention of supporting operators to run the process proactively. However, the main goal of this development is how the devices support our own developed “predictive models” to run the factory in autopilot mode. The presentation shows our concept of a fully automated process and where we already continuously measure the previously mentioned products. We explain how the data flow works and where and how we can use the data in our general concept of a fully automated process. Finally, we present the products we have developed together with our cooperation partner and how they can also support third parties.