Axians IAS reviews a recent case study from Phoenix Zementwerke that shows how contactless digital solutions can optimise processes and improve reliability.

"Today, one-third of all deliveries come in through IDispo", the dispatcher told his Plant Manager while sending the list of deliveries to him by e-mail. This overview contains all the information the Plant Manager needs and can be used to make a very detailed evaluation. "I like that since we have been working with this system, we have increased planning reliability, developed an optimised process chain and established a more environmentally friendly office that uses less paper," the Plant Manager replied to his colleague.

Phoenix Zementwerke has, due to the company’s aim of further digitalisation, implemented an instrument in their IT infrastructure which eliminates some asymmetries within their own process chains. IDispo (short for Internet Disposition) enables customers to be more self-sufficient than ever before and also brings many other advantages for the plant itself.

This article will discuss these advantages in detail.

Contactless is key
Systems that enable or largely support contactless business processes are greatly advantageous, especially in times such as the COVID-19 pandemic. By handling various or even complete stages of a business transaction online, companies can ensure that they continue to serve the market successfully. Contactless working is a guarantee for a significant competitive advantage in today’s market, but also in the market of the future, and provides a solution that will satisfy customers more and more.

Imagine that, as a company, it was possible to give partners improved visibility into their own deliveries. In global terms, a transparency that has only been possible to a limited extent up to now. Imagine, moreover, that this company retains full control and ensures that no delivery goes out too much or no load too little.
In addition, one can also imagine the scenario at Phoenix Zementwerke mentioned at the beginning of this article as follows: the Plant Manager has already pulled the reports himself in the shipping system or in IDispo with a mouse click, and answered his colleague: "Yes, I have also just seen them in the IDispo reports".

Now, imagine that it is possible to offer an optional feature that allows plant personnel to determine at the click of a mouse when the absolute best time for maintenance work on their silos is, without any of their partners having to accept a longer waiting period.

Axians, providers of Yard Management, Dispatch & Automation systems, has implemented, such a solution in the systems of Phoenix Zementwerke. Phoenix Zementwerke recognises the signs of the times and is also approaching the topic of digitalisation in the interests of its own employees, but also its customers and partners. In the best case, this results in a profit-maximising solution for all parties.

**Identifying optimisation approaches**

It started with RFID cards, which were either often forgotten by drivers or left in the factory. This not only led to unnecessary traffic jams, but it also created an uncontrolled bottleneck. As a result of the RFID card problem, an employee had to be called out at night. The need to set up an on-call service quickly arose, which resulted in unnecessary personnel operations.

Additionally, due to the repeated jams in front of the weighbridges, the throughput speed has decreased.

In short, Phoenix Zementwerke was clear that it must be possible to work more efficiently. Over time, a certain dissatisfaction within the company was felt, which was not particularly significant, but the management wanted to eliminate it in the best possible way.

The project started in September 2019 and went live in February 2020.

During the implementation phase and installation of various hardware components, there were minor delays. Both sides used the unscheduled interruption to record appropriate measures on how and by what means the employees of Phoenix Zementwerke, but also various customers, can or should be trained. The project can generally be broken down into four main phases.

**Phase 1: Consulting, design & specification**

Together with Phoenix Zementwerke employees, Axians has written a very detailed specification that not only maps processes holistically, but also defines the complete technical conditions. The specification starts with transaction data as well as master data, size, form and format. Further on, the specification outlines user friendly designed interfaces and an intuitive menu navigation, detailing layout, printouts, invoicing and reports for management and customers, all the way to interface communication between ERP, shipping system and IDispo.

This document forms the basis for the following three phases. Of course, changes may occur during implementation and installation, which will be considered at short notice. Agile project management is essential in such projects.

**Phase 2: Implementation and installation**

Phoenix Zementwerke took care of providing the on-site situation and installed all necessary hardware components, starting with the provision of the IDispo server and SSL certificate, photoelectric barriers, self-service terminals, and a reliable and stable network coverage within the plant.

The basis for all hardware components was determined together with specialists and adapted accordingly to the existing IT infrastructure. The aim was to acquire the right material with the necessary means, not to waste unnecessary resources and to act in a goal- and solution-oriented manner.

In addition, the developers carried out the programming according to the specification and hardware components. During this time a lively exchange between both partners took place.

**Phase 3: Test – internal and external**

With the completion of phase 2, the project seamlessly moved into the test phase and, based on an already defined scenario,
invited key users to test the entire system with all its components.

An employee of Phoenix Zementwerke took care of the external test. This had the significant advantage that not only a transfer of knowledge and thus a training effect was created. The project team was also able to identify and solve deficits quickly and easily. The preparation and implementation went so well that no complaints were made, either by internal or external sources.

Phase 4: Go live
After all tests had been successfully completed, Phoenix Zementwerke was happy to go live with the system.

The system is fully integrated into the logistics process and communication with the customer. It took some changing of mindsets to get the new contactless and web based solution fully established, but the benefits in the fields of order processing and logistics planning were quickly able to convince all stakeholders.

The idea was to enable customers to independently retrieve and coordinate parts of orders already stored in the ERP. Using iDispo, customers can plan and book their deliveries into the system completely independently of Phoenix Zementwerke. As soon as a delivery is created using iDispo, the customer receives a TAN, which can also be retrieved via a mobile device and used at the terminals in the plant. The driver can identify themselves at the self-service terminal, no Phoenix cement plant employee needs to be on hand to issue the driver an RFID card.

The plant is informed at an early stage and can plan its resources and ramp production up or down as required. This upstream step in the supply chain has several advantages.

Not only does the planning of raw materials become much more concrete, the energy budget and CO\textsubscript{2} emissions are optimised and thus reduced. A significantly higher level of safety in terms of maintenance and personnel planning automatically go hand in hand and result from the upstream process stage.

Further advantages
A significant advantage of internet dispositions is the associated transparency and resultant customer bonding. The customer can work independently of the device, view reports on deliveries and orders and determine the degree of self-sufficiency themselves. From a plant point of view, Phoenix Zementwerke has control over the orders and can define the quantity in the ERP and the number of deliveries per day/per week in the shipping system and can break down and adjust them to the individual customer. In this way it is possible, for example, to determine the degree of customer influence based on respective credit ratings. This not only increases the profitability of the plant, but also indirectly that of the customer, since it prevents the creation of debt.

From a technical point of view, the implementation and introduction of an Internet disposition does not present any major difficulties. Even the connection to a web-based dispatch automation system is not a major challenge for an experienced IT service provider. However, the basic requirement is a clean preparation of the specification. This must be very precise in terms of processes, data analysis and structure. As a result of exactly this precision, serious errors that can occur during the implementation can be eliminated right at the beginning of the project. This can lead to problems in user acceptance, but also to asymmetries in process execution.

Conclusion
To find out quickly what an iDispo can offer a company, the following questions need to be considered:

- Is there any work in the plant that the customer could take over?
  - Is it thereby possible to provide added value for the customer?
- To what extent should the customer be involved in the process itself?
- Should iDispo be a central point for the customer?

Phoenix Zementwerke had a very clearly formulated requirement: get better with every change. Even when processes are essentially ‘OK’, with a good partner and detailed analytical work, they can be fine-tuned and improved.

Digital delivery note.
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