

## SUCCESS STORY



DR. SCHNEIDER  
UNTERNEHMENSGRUPPE

## Putting an end to traffic jams at the plant gate. Process optimization in inbound and outbound logistics at Dr. Schneider Corporate Group

The Upper Franconian automotive supplier Dr. Schneider optimizes its delivery logistics with INFORM's intelligent software. A move which has benefited the company in many ways: The throughput and processing of delivery transport can be seamlessly controlled and documented, and unforeseen events can be handled flexibly.

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### Dr. Schneider Group

The Dr. Schneider Unternehmensgruppe has made itself a name as a specialist for first-class products in car interiors. As a flexible systems coordinator and strategic business partner to our customers, we are working on innovative solutions for the mobile world of tomorrow – always with a “Focus on Excellence”.

As an internationally successful family owned company, Dr. Schneider Group produces at its own locations in Germany, China, Poland, Spain and the USA and employs more than 4,000 people around the globe.

Automotive manufacturers are introducing new models of a brand onto the market between shorter and shorter intervals. At the same time, the number of individual configuration possibilities is constantly increasing. This acceleration and diversification of production obviously has an impact on supply chains, which are becoming increasingly more complex and interdependent, extending across Europe and beyond. For example, a single component of a car, such as the engine, can cross up to 15 national borders within the EU and go through 100 processing steps before being finally assembled. Truck traffic in Germany, which accounts for around 72 percent of freight traffic, has increased sharply in recent years. The number of trucks registered in Germany alone has more than doubled since 1990 and, according to the Federal Motor Transport Authority, is now around three million. In order to prevent congestion in front of the plant gates during the incoming and outgoing deliveries of goods, decision-intelligent algorithms can optimize the truck handling process.

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### Interface between OEMs and suppliers

The Dr. Schneider Group, headquartered in Kronach-Neuses, was also faced with the challenge of regulating the growing delivery traffic. The automotive supplier produces high-quality components for vehicle interiors. The product range includes highly integrated trim panels, modules for instrument panels, and center consoles for ventilation systems used in models from prestigious automobile manufacturers such as BMW, Daimler, VW and Volvo.

In its search for intelligent solutions, Dr. Schneider became aware of the Aachen-based software manufacturer INFORM, which had already successfully cooperated with partners and customers of the supplier in the field of process optimization in yard logistics. With the INFORM optimization system SyncroSupply, the traditional Upper Franconian company can today both regulate the flow of incoming trucks and flexibly control their operations on the plant site. Due to the differentiation in production almost every car is now fitted with different components. Since components are only manufactured and delivered at the time and in the quantity required for production in accordance with the just-in-time principle, the logistics requirements are enormous.

Automotive suppliers are at the crossroads of two supply chains: On the one hand, they themselves require material for the production of automotive parts, but at the same time they are part of the supplier network that supplies automotive manufacturers with components for the final assembly of vehicles. The resulting complexity of the flow of goods and the large number of trucks to be handled pose major challenges, particularly for medium-sized companies: They have to organize delivery processes for their own production and provide the automobile manufacturers a.k.a. OEMs (Original Equipment Manufacturers) with exact components they require. This is hardly achievable without the use of intelligent optimization solutions.

## Growing complexity of delivery logistics requires intelligent solutions

Up to 100 trucks and delivery vans frequent the factory premises in Kronach every day to deliver material to Dr. Schneider for further processing or to pick up finished components. These have to be loaded and unloaded as quickly as possible. Coordinating the delivery traffic has proven to be a problem for the supplier over time.

"Particularly between 11 a.m. and 1 p.m. the rush to the plant gate was enormous," recalls the project manager. The ever more complex and closely timed logistics processes could hardly be managed with conventional means: "All incoming or outgoing tours have to be processed by us on the same day. Although we used to know which deliveries would reach our plant on which day, we often didn't know the exact time. Arriving trucks first registered with the gatekeeper and received the vehicle identification document from him. The gatekeeper then called the responsible departments and announced the trucks there. They were then assigned a free loading point in the yard to drive to," explains Holzmann. Both the gatekeeper and the loading master were constantly on the phone, and the latter also had to monitor outgoing freight. "Our most important tools were the telephone and Excel spreadsheets," says Holzmann. "We didn't have a continuous overview of where which truck was on the site and with which freight." But if handling for individual trucks is delayed, this can result in high demurrage charges on the part of forwarders and waiting customers. INFORM's SyncroSupply solution helps prevent this.

» On some days, there have been truck traffic jams reaching from the plant to the nearby federal highway. That's why we optimized the truck supply control by using INFORM's algorithms.

## Algorithms enable time slot management and optimized supply control

SyncroSupply, which the Dr. Schneider Group implemented in May 2016, enables effective and flexible time window management: freight forwarders can book time slots for the delivery or pickup of materials free of charge in advance on the Internet. This significantly reduces truck throughput times and makes better use of loading point capacities. Waiting times, traffic jams or bottlenecks in production are a thing of the past. Unforeseen events can nevertheless turn the complete time slot plan upside down at any time. "Some drivers speak neither German nor English and can hardly communicate with our employees," says Project Manager Holzmann. "It happens that certain time stamps are not set correctly and shipments are not assigned to the correct truck, or registered trucks arrive at a different time than announced. The intelligent truck supply control helps us to cope with breakdowns as well." The intelligent optimization algorithms then calculate a new schedule that guarantees smooth processing of the delivery traffic. At the request of Dr. Schneider, the software was supplemented with a warning function: If an automatically called truck does not reach the intended loading point within a few minutes, a warning symbol appears in the system.



Christopher Holzmann,  
project manager factory logistics  
at Dr. Schneider

### Seamless control and documentation of truck processing

Time slot management and truck supply control with SyncroSupply allow Dr. Schneider complete and flexible control over the entire truck handling process in the plant. For non-recurring tours, freight forwarders must secure free time slots in the schedule before delivery or pickup at the plant. A trip number is assigned, with which the truck drivers register at the plant gate upon arrival in Kronach-Neuses. The trucks then go directly to the assigned ramp or to a parking space to wait for their call via SMS. While trucks in the incoming goods and container management areas are automatically dispatched by Dr. Schneider, the loadmasters still make the call themselves in the dispatch processing department.

At the gate, the driver of the called truck receives a vehicle accompanying document with all information relevant for tour processing, such as the trip number, unless the forwarder has already generated the document himself when booking the time slot. After arrival at one of the ten available loading points in the yard, the forklift drivers stationed there set time stamps to document loading or unloading. To complete the loading process, the forklift drivers take a photo of the fully loaded truck, which is archived in the system together with the trip number. It is intended to prove that the cargo has been properly secured. In the case of the automatic call, the system automatically triggers the call of the following truck in the schedule; in the shipping area, the loadmaster carries out this step manually after he has handed over the shipping documents to the truck driver. Processed trucks can leave the site or drive to the next station in the plant.

## Results

- Reduction of throughput times with considerable reduction of downtimes
- Seamless control and documentation of truck dispatch
- Complete resolution of congestion before and at the plant

### Process optimization that pays off

According to project manager Holzmann, Dr. Schneider has not regretted its decision to optimize its logistics processes with SyncroSupply: "Today, we are organizing all of our delivery traffic much more efficiently. Waiting and throughput times have become significantly shorter. Traffic jams are no longer an issue for us today. This also enabled us to optimize our cooperation with the OEMs." The supply chains of the automobile manufacturers and Dr. Schneider now interact much better than before, even though just-in-time production leaves less and less time for the production process. For the future, Holzmann plans to develop the system further in close coordination with INFORM: "For us as suppliers, it would be a great advantage if we could merge our own ERP system with SyncroSupply. This would allow us to further optimize our internal processes."

### If you would like to know more, we look forward to hearing from you:

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