SUCCESS STORY

MEYER WERFT
PAPENBURG 1795

Wind in the sails of intralogistics

With the construction of a modern logistics center for production supply, a new intralogistics challenge arose at MEYER WERFT in Papenburg. With an upgrade of INFORM's SYNCROTESS transport control system and restructured transport processes based on intelligent algorithms, all parts required to build large cruise ships are now planned in advance and delivered just-in-time to the right production location.

According to a famous postcard slogan, "A ship that is in the harbor is safe, but that is not what it was built for." The more than 3,500 employees of MEYER WERFT know what it means to build a stormproof ship. The shipbuilding company has been building ships in Papenburg since 1795 and, since the mid-1980s, has been building large cruise ships, including the AIDACosma. It takes around three years to complete a project and more than twelve months to build and test a ship like this, which is over 300 meters long and can accommodate more than 3,000 passengers.

Every day, shipbuilding requires about 1,500 internal material transports. These are handled by 175 employees in the intralogistics department, which has been operating under the Christian Meyer management for the last five years. The intelligent transport control system SYNCROTESS has been in use for internal transport since 2004. As part of a modernization project, this was upgraded to the latest version in 2021 and has since been optimizing not only transport orders but also the planning and control of the entire intralogistics.

MEYER WEERFT GmbH & Co. KG

For more than 225 years, the Meyer family has kept the shipbuilding company, one of the largest and most modern shipyards in the world, on course – now in its seventh generation. As at the time of its foundation, the shipyard is still located in Papenburg today. In the huge production and construction docks, cruise ships for international shipping companies have been built for decades. To date, 53 of these luxury liners have been launched from the shipyard. In addition to MEYER WERFT in Papenburg, NEPTUN WERFT in Rostock and MEYER TURKU in Finland also belong to the consortium.

https://www.meyerwerft.de/en/

A new logistics center brings new challenges

Swap trailers and semitrailers are used to deliver construction materials ranging from large components to small parts just-in-time from the modern logistics center to the ship or directly to the shipbuilding site. However, the processes did not always run in such a structured manner, Meyer recalls: "Before the new logistics center, there were a large number of storage locations, which led to inefficient supply processes due to their physical separation." For this reason and because of the ever-increasing market pressure, especially from shipyards in China and Europe, Meyer Werft decided to invest in a new, modern, and digital logistics center in 2019 and to modernize the existing IT infrastructure.

In this regard, SYNCROTESS was also upgraded and brought up to the state of the art to adapt to the new intralogistics challenges. "SYNCROTESS has always been the special system for us for internal transport," says Meyer. The ERP system add-on software supports the central control and optimization of all plant traffic logistics processes.

Whereas in 2004, we sent out one ship a year to the oceans from Papenburg, capacity has now grown to three ships a year. "If Corona hadn't come along, we would have even ramped up production to four ships a year." The crisis necessitated a stretching of orders, in cooperation with our customers. Two ships per year are on the order books until 2025. This means a significant drop in

turnover. "But slowly the world's cruise fleet is starting to move again. And building the existing orders as efficiently as possible is the order of the day," Meyer reports.

The right material in the right place at the right time

Material requirements from production are transmitted to SYNCROTESS via the ERP system SAP EWM. SYNCROTESS determines a supply run based on various system parameters and reports the departure time to SAP EWM. After picking in the logistics center, the transport goods are loaded onto swap trailers and transported to the load transfer point. From there, the material is either transported to the production area or, with the help of cranes, directly onto the ship via so-called hatch openings. On board, the materials have to be manually transported due to the limited capacity. "Only items that are really needed on the construction site should be present. On the one hand, because the ships' passageways and cabins are narrow, and on the other because the material could be damaged during long layovers and it increases the ship's fire load," Meyer explains. For this reason, intralogistics delivers the required parts in small but precise working packages on a short-cycle basis. As a result, production is supplied with the right materials just-in-time. At the same time, transport optimization ensures consistent resource utilization, high transparency, and avoids empty runs.

The scheduling department at MEYER WERFT uses SYNCROTESS to control and monitor all intralogistics orders, track order status, schedule cranes and, when action is required, quickly receive the right information on clear dashboards. In operational transport, truck and forklift drivers, as well as employees on the ship, receive all of their relevant information about the transports and goods via the SYNCROTESS app.

» **SYNCROTESS not only allows us to optimally map the complex structures of our intralogistics but also provides us with optimized transport orders so that we can supply shipbuilding just-in-time and thereby uphold our agreed delivery dates.**

Christian Meyer,
Head of Intralogistics at MEYER WERFT

High traceability and flexibility

Meyer sees a relevant advantage in the simple logging of deliveries: "When the transport is complete, our employees snap a photo of the goods at their final staging location, simply upload it to the app and link it to the corresponding order. This not only creates maximum transparency and traceability but also helps the production department to quickly find the material in the winding passageways on the ship." Another goal of the upgrade project was to map all transport resources in a chain and to be able to control them optimally. From the forklift truck to the crane, the delivery of the material is now mapped end-to-end. The excellent configurability of SYNCROTESS is also a particular advantage for Meyer. Since each cruise ship has different manufacturing requirements and is made of different materials, it must be possible to adjust the scheduling parameters quickly and easily. "Sometimes it's not clear before construction begins how heavy or large certain production items are. We have to be flexible here to be able to recognize the effects of our planning based on real conditions," says Meyer.

Results
· Planning, optimization and central control of intralogistics
· High traceability and flexibility of transports
· Mapping of complex logistics tructures
· High adherence to schedules of just-in-time deliveries from the logistics center

Practice-oriented software for intralogistics

Despite the travel restrictions during the Corona pandemic, MEYER WERFT and INFORM carried out the upgrade project as planned: "Only being able to coordinate via online meetings in the height of this project was new to most of us, but quickly turned into an established practice that in no way hindered our successful implementation," Meyer recalls. When working together, he particularly appreciated the fact that the conception of new processes with software by the INFORM colleagues was always closely oriented to the actual conditions in production and logistics. "When software goes live, everything has to work. With INFORM, we have a good partner at our side who understands our needs."

© MEYER WERFT

If you would like to know more, we look forward to hearing from you:
INFORM GmbH / Manufacturing Logistics Division
Pascalstr. 35, 52076 Aachen
syncrotess@inform-software.com / inform-software.com