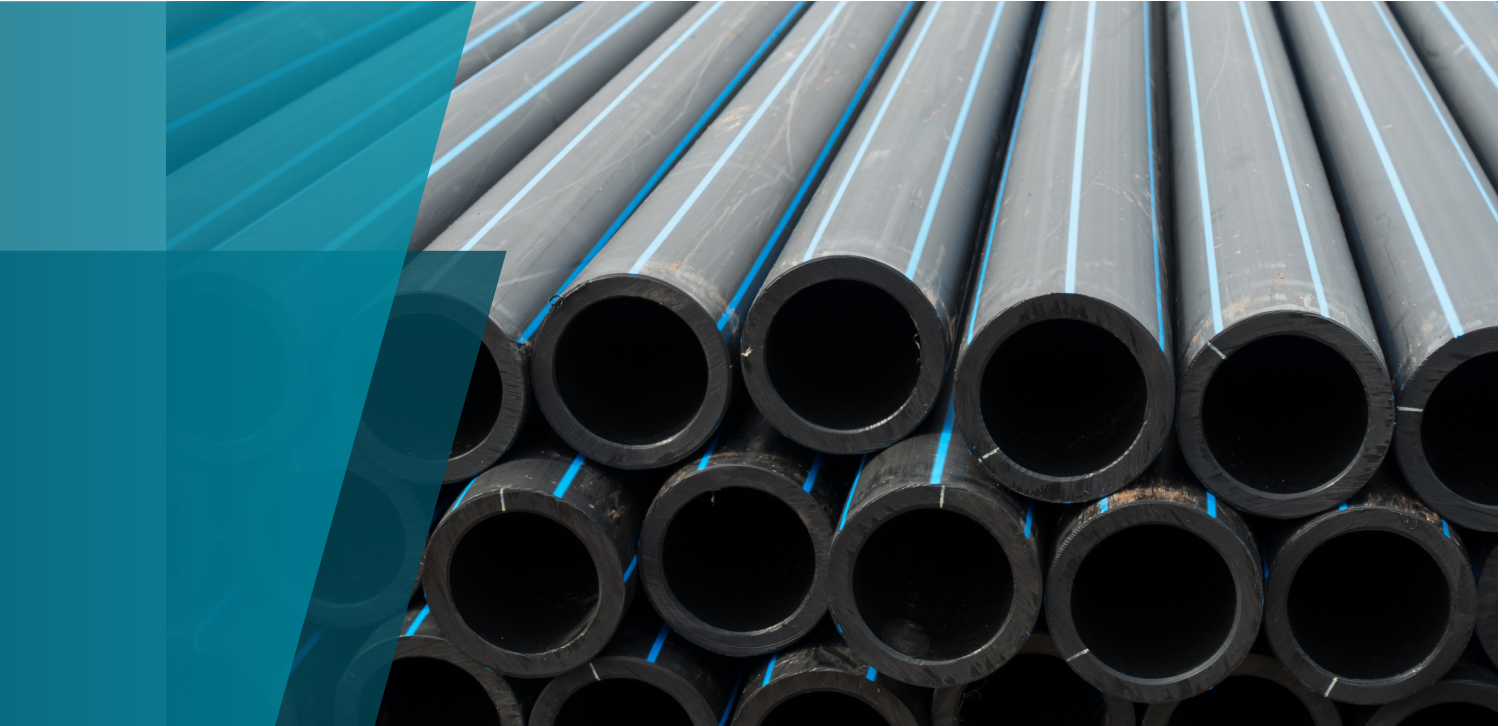


SUCCESS STORY



Kabelwerk **EUPEN** AG
pipe

Simultaneous Production Planner

A Step Towards the Future: Simultaneous Planning for an Optimized Production

Kabelwerk Eupen AG produces pipes in a wide variety of forms for the extensive laying of cables and pipes.

For production planning with optimal machine utilization and at the same time demand-oriented production, the pipe mill introduced ADD*ONE Simultaneous Production Planner by INFORM. As a result, the rare shortages could be reduced by another 41 % and the inventory by 15 %.

Kabelwerk Eupen AG is one of Europe's leading cable manufacturers and one of the few that covers all production steps from raw material to the deployment at the customers' sites. This guarantees flexibility at every stage of the value chain: from design and actual production to final quality testing.

The pipe mill stands for quality, experience and customer service and is part of Kabelwerk Eupen AG. The company employs a total of 850 people, making it the largest employer in eastern Belgium. It started in 1956 with the production of plastic cable conduits. An expansion of the product portfolio to include sewage pipes later enabled the pipe mill to enter the sanitary industry.

Soon Kabelwerk Eupen was in a position to offer the Belgian market a wide range of PVC and polyethylene pipes for groundwater supply, drainage systems, stormwater transport and wastewater disposal. The company mainly supplies public water utilities, but gas distributors and electricity suppliers also rely on the Belgian manufacturer's products.

Moreover, the pipes are used to lay the power cables produced at the cable plant.

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The pipe mill has been producing PVC and polyethylene pipes since 1956. These pipes are used for laying the cables manufactured in the associated cable plant and also for carrying drinking water and wastewater in Central Europe. In the past, the wide range of products has increasingly taken up all production capacities. Meeting delivery deadlines was a major challenge and the production program was regularly restructured with a great deal of manual effort. This caused dissatisfaction in the inventory management, sales, and production planning departments. The annual plant vacations in July also presented the planners with a major challenge: *"Here at Kabelwerk Eupen, it is customary to pause the entire production during the summer. In order to be able to deliver during this time, we had to start pre-production very far in advance. This, of course, inflated our inventory"*, explains Michael Göbels, plant manager of the pipe mill at Kabelwerk Eupen. However, more efficient pre-production proved difficult, as the production capacities in the months of April to June were fully utilized with the demand in these months, so stocking up with sufficient products for the month of July had to start early in the year.

Many planning meetings and complex EDP

Before the new software was implemented, a weekly coordination meeting was held with the department managers of the pipe mill to set all production dates for the coming week, in order to create a production program that included pre-production and reconciled the goals and requirements of sales, scheduling and product planning. Numerous factors repeatedly prevented planning consensus: *"Our philosophy is to offer all customers the same high standard of service. The focus is on maximizing delivery performance, regardless of the type of customer. However, this is not always easy to implement in planning"*, explains Göbels. In addition, bottlenecks had to be avoided and setup costs minimized. In combination with scarce resource capacity, these goals regularly led to conflicts: To ensure delivery dates, frequent production runs in smaller batches were necessary in the event of capacity bottlenecks, which naturally conflicted with minimizing setup costs.

In addition to this conflict between short-term delivery commitments on the part of the sales department and the economic goals of production, there were also regular changes at short notice. *"Once we had created a feasible plan that everyone was happy with, the events of the next few working days would completely shatter it again"*, reports the planner at Kabelwerk Eupen. The planning effort was thus enormously high throughout the entire week. Before the introduction of the specialized system for program planning, the planners used the APS system as the main system. However, this system for detailed planning lacks a holistic view that enables proactive production planning with optimal capacity utilization. Consequently, bottlenecks arose more and more frequently at that time which made manual corrections necessary. The volatile planning then caused the situation that the sales department promised delivery dates to the customers that based on the current production planning, but all too often it changed completely in the following days.

Priorities for the right stocks

In order to supplement the existing APS system with an optimized rough-cut planning and to achieve a long-term master production schedule as well as bet-

ter machine utilization schedules, the pipe mill opted for the modern and holistic planning approach of ADD*ONE Simultaneous Production Planner. First, a ranking of the various demand situations was determined in cooperation with the INFORM project managers. For instance, concrete customer orders have a higher priority than demand forecasts. In third place is the replenishment of the safety stock. This measure, as well as the simultaneous consideration of all priorities together with the available machine capacities, resulted in an inventory reduction of 15 % in the pipe mill, with a simultaneous service level increase of 3.5 % to 95.5 %.

» Due to ADD*ONE Simultaneous Production Planner we have gained tremendous flexibility and are now much closer to our daily business. We were able to reduce rare delivery delays by another 41 % – now we always produce the right quantity at the right time. Today, our planning results are of the highest quality."

Michael Göbels, plant manager of the pipe mill at Kabelwerk Eupen

Carefree plant vacations, fewer bottlenecks and increased flexibility

With its intelligent foresight, ADD*ONE Simultaneous Production Planner allows to produce the necessary pipe stock for the plant vacations in July within a reasonable time in advance. This means that no unnecessary inventories are built up, yet the ability to supply the customers is constantly high, even during the plant vacations. Using a backlog list in the graphically supported planning interface of ADD*ONE Simultaneous Production Planner, impending stockouts can now be detected at an early stage. To ensure that a stockout alert is also available in the APS system, Simultaneous Production Planner marks the planned receipt as 'urgent' that will fix the imminent shortage. Via the interface of the two systems, the marking of this urgent production order is also easily recognizable for the planner in the detailed planning. As a further means of prioritization, this contributes significantly to calming down the production. In the APS system, the specific production dates are now determined on the basis of the lot sizes planned by ADD*ONE, and according to additional criteria for assembly cost optimization. Due to the set of rules in ADD*ONE and the achieved flexibility, the effort for the planners has now been reduced to two hours per day. *"Without the system, the effort would be much higher. We would not be able to serve our customers in the way our philosophy strives for. We also wouldn't have rolling planning and thus wouldn't be able to react to current events every afternoon",* Göbels is pleased to say and continues, *"We are now in a strong position, our planning results are of the highest quality."*

The path to Industry 4.0

The vision of a fully networked industry has also found favor with those responsible for planning at Kabelwerk Eupen AG. Michael Göbels knows: *"Industry 4.0 will be the future. A smart factory, that sends the customer order directly to production and autonomously ships the product to the customer, is the total optimum."* By using ADD*ONE Simultaneous Production Planner, the plant manager has made a first step in this direction. In addition, an expanded machine park at the highest



Kabelwerk Eupen AG is one of the largest employers in East Belgium.

technology level is also intended to boost digitization in the pipe mill. *"Today, we work in line with demand and close to the customer. Our systems enable us to respond adequately to the market"*, summarizes Göbels.

The Project at a Glance

Challenge

Prevent bottlenecks in machine capacity, guarantee punctual deliveries and ensure pre-production for the annual plant vacations in July

Results

- Reduction of rare shortages by a further 41 %
- Service level increase to 95.5 % with a simultaneous inventory reduction by 15 %
- Integration of production planning with ADD*ONE and Detailed Planning in the APS system
- Optimized pre-production for the vacation season
- Increased competitiveness through reliable deadline commitments and fast scheduling, demand-oriented production and a more flexible planning

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

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