Colas Danmark A / S in Nørresundby goes digital with the cloud-based maintenance system INEXTIA

Colas asphalt factory in Nørresundby, Denmark, produces and sells asphalt products used primarily by Colas internally. The company can be found at Sundsholmen 2 in Nørresundby, Denmark. The factory can produce 4 tons of asphalt per minute, which is mainly delivery items as the asphalt is used relatively fast after being picked up at the factory.

Torkild Frandsen, Factory Manager at Colas tells, "Asphalt is a composite product that primarily consists of stone, fly ash and bitumen. Previously, we added granulated wood but today we re-use newspapers – and actually also discarded asphalt.

Mikkel Haldrup, Energy Consultant at Colas adds, "The asphalt production demands expensive equipment, which issue high demands on maintenance. As our production is happening in high temperatures, we often have to replace our equipment."

Nørresundby asphalt factory has been involved in the development work with INEXTIA and will also be a cooperating partner in the future. This means that the factory, as one of the first users of INEXTIA, has had the possibility to test and make suggestions for improvements to the maintenance system before launching the product.

At Colas, maintenance is today executed with high flexibility and without documentation

At the factory in Nørresundby, Denmark, there is a fixed blacksmith at the factory, that works full time throughout the year. In the three months of winter, where production stands still, all employees take part in the maintenance tasks.

Factory Manager Torkild Frandsen tells, "We have employed talented people, so we have our maintenance under control and do not experience problems with things breaking down. Usually, we take a service round once a day, where we check e.g. belt conveyor, oil leaks and jarring sounds. Vi primarily do maintenance in the tower at the belt conveyor and in the rotary dryer"

Maintenance at the factory in Nørresundby, Denmark, is usually done based on intuition and many years of experience. For that reason, valuable knowledge risk getting lost. Maintenance is executed by an employee when something is broken, and a check-list system is used. For that reason, the factory is often experiencing that an 8-hour shift turn into a 12-hour shift due to unexpected tasks or deliveries.

Torkild Frandsen sees both advantages and disadvantages with the implementation of a maintenance system. "We do not want to lock ourselves to one system because we need flexibility. In return, I think that INEXTIA can help us to get better documentation, history and to get all the way out in the corners. I also have to admit, that it would be smart if we would be able to go back in the history and see when a spare item was replaced the last

time. Also, INEXTIA will ensure that tasks are being solved quicker."

As of today, both cellphone and email system are used in relation to maintenance. As an example, photos are taken by cellphone to report mistakes.

Big expectations to optimized maintenance with INEXTIA

INEXTIA is currently getting installed at Colas' asphalt factories, vehicles and mobile equipment. In the long term, Colas is expecting to use INEXTIA at all plants for all activities, such as workshops, gravel pits, buildings, machines and laboratories. Data entry has started, and Colas expects to create 60 users of INEXTIA.

Colas has great expectations to the system and Henrik Kusk, Equipment Manager at Colas, says,

"We want to work more structured and proactive with maintenance across the organization. We need to share our experiences with all our employees, so the efficiency and quality of maintenance does not drop due to illness, substitutes or new employees. INEXTIA will be a useful software in connection with construction of the knowledge and documentation that is necessary for our work with optimizing maintenance at the factories here in Nørresundby and in the rest of the Colas-organization."

Factory Manager, Torkild Frandsen, agrees and adds, "We are good at using each other across the organization and I often call a co-worker to ask for advice. But, if you do not have the same personal network as I do, it would be nice to get that information from the system. My co-worker, Kim, often coordinates knowledge across the organization and therefore he will also play an important role for the configuration of INEXTIA."

Colas will get the possibility to gather data through digital sensors from their machines, which results in optimized maintenance with exact maintenance intervals. Ultimately, this will mean operational savings, reduced fuel consumption and reduced downtime.

Colas has a clear opinion to preventive maintenance. Mikkel Haldrup Jensen explains, "We want to actively use our hour counters in relation to maintenance. We find great value in automatic import of data in INEXTIA through an hour counter as it gives us the opportunity to execute counter based and planned maintenance. Today, we execute maintenance when needed, but I believe that a more structured maintenance is the way to go."

For a longer period, Colas has been focusing on digitalization and INEXTIA is just one of the new approaches. Mikkel Haldrup Jensen says, "The keyword is that it has to be easy and accessible, otherwise our staff will claim that they do not have time for it. Therefore, you must be able to quickly report mistakes and get an overview of the daily tasks. We can make it easy for ourselves and our staff in the field. A cloud-based system is a big help since we always have access to the system, no matter where we are located. INEXTIA will replace our post-it-system, which has delayed our tasks instead of solving them immediately. For that reason, the INEXTIA app will play an important role."

Henrik Kusk, Mechanical Manager at Colas concludes, "INEXTIA is the first system that we use for planning our maintenance. We have experienced, that we need better planning and documentation – among other things because we primarily execute maintenance in the three months of winter with the main part of asphalt production put on standby. We wish to gather data in one system. That does not only count for machines but also invoices, spare parts and supplier information. With INEXTIA, we can even link suppliers to the different components and machines."

There is no doubt that the expectations for INEXTIA are high. The system will be a part of Colas' work with digitalization and will result in structured, planned and documented maintenance. In the end, this will lead to optimized internal processes, effective maintenance, and Colas can look forward to reduced operational costs.