Eissmann Automotive is the world’s leading manufacturer of high-quality shifter modules, trim components, and complete car interiors. Founded in 1964, the globally active family business, headquartered in the Swabian town of Bad Urach, has more than 5,000 employees at 13 production sites in Hungary, the Czech Republic, Slovakia, the US, Mexico and China. The car interior manufacturer works together with nearly all the renowned manufacturers in the automotive industry and relies on a perfect synergy between traditional craftsmanship and state-of-the-art production processes.

As a manufacturer of high-quality products for car interiors, Eissmann Automotive uses the process mining technology from Celonis to monitor the Purchase-to-Pay process, master data management, production, manufacturing management and purchasing, enabling effective and profitable production.

“IT has to be faster than business demand – and we’re living that!” This maxim from Bodo Deutschmann, Head of IT, symbolizes Eissmann Automotive’s quality standards. The company guarantees its corporate customers safe high-quality products that are produced in a complex production process, partly by machine, but in large part also by hand. To remain competitive, despite this high-quality standard, and to monitor every single production step, Eissmann Automotive has digitized its entire process chain. This is particularly important for safety-related products such as driver airbags. Each part that is processed has a unique serial number that is used throughout the entire production process. At each work stage, whether it is flaming, gluing, or cutting, the serial number is scanned, and the data is stored digitally. Each process step is clearly described, documented, and stored in corresponding work instructions. To achieve clear traceability of all work steps, all employees receive intensive training and the machines are equipped with appropriate interfaces. All data is archived for more than 20 years. Eissmann is at the forefront of digitalization,
and as a result the analysis and use of emerging data becomes more and more relevant – and Celonis Process Mining supports us in this,” says Deutschmann. The innovative Big Data technology is used at Eissmann in a wide range of business sectors: Purchase-to-Pay (P2P), a standard process in conjunction with SAP, followed by application in Master Data Management (MDM). Meanwhile, the Celonis software is also used throughout production, especially in the MES safety-related systems as well as within purchasing used for supplier evaluation.

ALWAYS KEEP AN EYE ON THE PROCESS FLOW

Bodo Deutschmann sees enormous benefit with the use of Celonis Process Mining in the process flow analysis. Since it is generally very difficult to deal with a natural product such as leather, a great deal of manual work is required in production and automation is only feasible in small steps. On the other hand, almost everything could be automated for the driver airbags. The machines used provide data for each individual production step – whether for pressing the leather, the duration of the cooling phase, or the amount of pressure used. This huge amount of data is easily evaluated with Celonis Process Mining.

By using Celonis, it is possible to track and visualize the production cycle in real time at any time: which steps were taken, how long did it take, where are bottlenecks, and where is optimization potential.

PROCESS MINING IN MANUFACTURING

Udo Gegenheimer, Project Coordinator of the Manufacturing Execution System (MES) team, is also enthusiastic about the potential applications of Celonis. MES describes the acquisition, evaluation, and delivery of data that originates within the production as part of an ERP system. “Previously, we evaluated most of our data with traditional methods, which was very prone to errors because data was often not treated equally and was therefore evaluated incorrectly,” recalls Gegenheimer. “Today we have all safety-related lines, all components around our airbags, mapped in a ME system, and can therefore guarantee complete traceability. Thanks to Celonis, we have been able to unify the whole process so that every user sees the same evaluation.”

This is possible by connecting the ME system to an AS-400 or SQL database, which transmits the data to the Celonis software. This allows to track in real time how the production is running, whether the process is stalled somewhere, and where it needs to be corrected. Based on the findings, Eissmann Automotive was able to achieve enormous improvements. For example, individual product lines have been rebuilt, shorter production times have been realized and individual manual activities have been automated. In addition, a direct comparison of the production of similar parts at different plant locations is possible. “I can see exactly where the weak point in plant A is compared to plant B, and vice versa, and identify ideal running times. This enables best practices to be developed and rolled out to other locations. As a result, the entire manufacturing process can be completed faster,” says Gegenheimer. This is an enormous bonus, especially since the manufacturing complex is extremely sensitive and individual steps must be highly fine-tuned and timed: “The
adhesive used in leather processing, for example, lasts four hours; after which
time the adhesive and the parts that have
been glued may no longer be used. If
such an adhesive-applied part waits four
hours and one minute before further
processing, it must then be discarded,
and defined target cycle times cannot
be met. With Celonis we can identify
such sources of error very effectively
and permanently avoid them.” This can
also make for better calculations in the
future. It allows clock rates that were
originally calculated and presented
to the customer to be corrected for
future projects and orders to be kept
profitable. “I have worked with different
models for analyzing and evaluating
processes in my previous activities.
However, what strikes me as very posi-
tive about Celonis Process Mining is the
process representation. In contrast to
other solutions, processes can be repre-
sented in exactly the same way as they
actually run every day during operation.
Celonis is very easy and intuitive to use,
allowing you to link and quickly analyze
vast amounts of data. Our management
also uses Celonis. The most convincing
thing about it is: unlike working with tra-
tional software, all users get the same
result,” says Udo Gegenheimer.

WITH PROCESS MINING FOR CORRECT
MASTER DATA ALONG THE SUPPLY
CHAIN

Another application of Celonis Process
Mining at Eissmann Automotive is master
data management. Master data is con-
sidered by Eissmann to be the “gold” of
the company. Because it is used by very
different areas, it is highly relevant to all
business processes. Bernd Jacob, Head
of Master Data Management, and his
team are responsible for ensuring that
the company’s master data is properly
prepared and available in the right place
at the right time. The master data team
provides the MES colleagues with the
data for their analyses. Celonis Process
Mining tracks the amount of time people
spend in the company and how long each
step takes. The powerful visual process
representation of Celonis is important to
Eissmann to understand the throughput
rates and the times of the individual work
stages. “There was, in fact, a process
step that took twice as long as all the
other work stages. Since then we have
changed the whole process and the
problematic process step has been com-
pletely eliminated. This has improved
the entire process and reduced
throughput times by 30 percent; a great
success,” says Bernd Jacob. In addition,
the MDM team uses the Celonis software
for process mapping and reporting: “Rep-
resenting serial processes with parallel
processes as such is a key aspect for us.
At the beginning this was not possible
with Celonis, but the team gave us great
support and programmed it to our needs
so that we now have an ideal solution,”
says Jacob. He is also enthusiastic
about the fast reporting options: “Our
goal in the master data field is to set
up all workflows completely via Celoni-
s, both the process reports and the
reports for management. These are very
time-consuming and often take several
days to create. Therefore, we are cur-
rently working on building a storyboard
for Celonis, with the goal of achieving
automatic distribution.”

NEW TRANSPARENCY IN PURCHASING
AND SUPPLIER MANAGEMENT

In purchasing, the biggest challenge is
global activity, such as the realization of
new businesses and projects in Mexico
and the US. The priority was to make
purchasing controlling more transparent
across all locations and to re-establish
reporting. Before using Celonis, Eiss-
mann struggled with the lack of transpar-
ency and traceability of the purchasing
process; categorizations were not clear
and product groups were not presented
in sufficient detail. Simple questions,
such as how much turnover a particular supplier achieves, could not be satisfactorily answered. Celonis has made an important disciplinary contribution. The software has detected deficiencies in a variety of data sets, such as large-scale input errors. For example, if the currency denomination is given in Czech crowns instead of euros, or if the weight is given instead of the number of pieces, the impact is enormous. “Celonis also creates additional potential in our supplier relationships,” explains Rolf Niquet, Head of Materials Management at Eissmann Automotive. “Thanks to Celonis Process Mining, we were able to see that one and the same supplier was supplying our different locations on different terms, which was extremely surprising. There are also new potentials for strategic purchasing, especially if, on the basis of the analysis, I can see that we are somewhat stretched in one division with only two suppliers, while there are too many suppliers involved in another. All in all, we were able to gain a great deal of knowledge and correct our processes accordingly.”

WELL-PREPARED FOR THE CHALLENGES OF THE FUTURE

The importance of Celonis Process Mining within the Eissmann Automotive Group will continue to grow over the next few years. “All evaluations that we are currently conducting on pivot tables under the name ‘Eisy’ will be implemented in Celonis in the future,” points out Bodo Deutschmann. Celonis can also help with global expansion and the acquisition and implementation of new projects in Europe and the US. With full order books, optimized processes in purchasing and production as well as reliable master data and supplier relationships are a decisive competitive advantage. Bodo Deutschmann summarizes: “We can score points with quality, dependability and delivery reliability among our customers – we owe much of that to the application of Celonis.”

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