

A man with a beard and glasses, wearing a dark polo shirt, is looking at a tablet computer. He is standing in a factory or industrial setting, with a large piece of machinery visible in the background. The machinery has a conveyor belt and various mechanical components. The overall color scheme is blue and white.

operations¹

KraussMaffei Success Story

Introducing a Connected Worker Platform along the entire value chain

About *KraussMaffei*

Steeped in tradition and at the same time globally positioned – as one of the world's leading manufacturers of machines and systems for the production and processing of plastics and rubber, KraussMaffei combines tradition and innovation awareness like no other. The global player's range of products and services features all technologies in injection moulding, extrusion and reaction processing as well as additive manufacturing.

Its customer base includes companies in the automotive, packaging, medical and construction industries, as well as manufacturers of electrical and electronic products and household appliances. KraussMaffei employs around 4,700 people worldwide and has a global network of 30 subsidiaries. The headquarters of the traditional company have been in Munich since its foundation in 1838.



"We searched for a long time in order to find the right partner. With Operations1, we succeed in mapping the end-to-end process along the entire value chain."

Claudio Sutter
Project Engineer Process Excellence
KraussMaffei

The challenge

KraussMaffei takes individual customer requests into account when configuring its machines and systems. On the one hand, this entails a high number of variants, and on the other hand, an extremely complex commissioning process, which until 2021 relied on paper-based processes and thus involved a lot of effort for all employees involved.

That's why a cross-location team led by Claudio Sutter, Wolfgang Marquart, Phillip Duwe and Holger Labusga specifically looked for a software solution that would initially digitize the commissioning process at the Munich site and the quality inspection at the Hanover site. In the future, the documentation along the entire value chain will be digitally mapped.

-67%

REDUCTION OF THE
DOCUMENTATION
EFFORT

60 Minutes

COMMISSIONING
TIME REDUCTION
PER MACHINE

+100%

TRANSPARENCY ON
FINDINGS AND
WORK PERFORMED

Complex documentation process during commissioning

To ensure the highest quality, KraussMaffei places great emphasis on a comprehensive commissioning process. To carry out the factory acceptance test (FAT), the first step was to create bilingual test protocols in Word or Excel, so-called maximum lists, which were then printed out and compiled in a comprehensive order folder and physically provided by Quality Assurance.

The commissioning engineers used these maximum checklists to meticulously check and document the functionality of the machines. All of this was done manually, deleting the irrelevant parts and with manual supplements. After completion of the commissioning documentation, the documents were scanned and stored in SAP – sometimes up to 350 pages in the case of extensive protocols. The answer to queries of all kinds had to be looked up manually in the physical documents.

In order to free commissioning staff from paper-based activities and enable them to efficiently carry out their value-adding activities on machines, KraussMaffei decided to take the digital route. After extensive market research, the global player choosed to work with Operations1.

The goal was to roll out the digitalization of employee-led processes as a bottom-up project – starting with commissioning – across all production processes at all locations – including assembly, quality inspection and service as well as production-related processes such as 5S inspections.



350

PAGES OF PAPER
TO SCAN AND
ARCHIVE PER
MACHINE

- Additional interpretation & documentation time due to diversity of variants
- Long cycles for checklist adaptation
- Low transparency of the production progress
- Lack of possibilities for CIP

Easy implementation and connection of Operations1

In digitizing the commissioning process, KraussMaffei decided in favor of Operations1 for several reasons: First of all, the platform covers a very broad range of functionality, which is important for commissioning and many other operational processes. The high level of user-friendliness, multilingualism and technical scalability also contribute to rolling out the platform worldwide and creating comprehensive value for KraussMaffei through a high level of adaptation. Thanks to the continuous development of new functions, KraussMaffei also benefits from innovative solutions as a long-term partner.

After the initial introduction of Operations1, the first step was to connect to the ERP system. This connection allowed orders from the ERP to be automatically linked to the commissioning logs in Operations1 and could then be seamlessly stored in the DMS.

By aggregating all documents formerly stored in paper mountains into one order each, from now on the worker is shown exactly the inspection order that is relevant for him.



The joint project team during the on-site visit at the Munich location

Digital commissioning checklist

The mobile display on the laptop, tablet or smartphone by means of images, PDFs and videos enables intuitive and efficient commissioning, during which employees can ask questions via the chat function, assign tasks and much more.

Once commissioning is complete, the platform automatically generates a report that can also be output as a PDF or Excel file.

Comprehensive advantages through digital commissioning

The advantages gained by KraussMaffei are clear: The effort is reduced both for the employee at the machine, who is guided step-by-step through commissioning, and for the quality assurance department, which creates, manages and archives the checklists.

Thanks to the seamless documentation in the automatically generated reports, customer confidence that commissioning has been carried out carefully and comprehensively increases. Finally, with the help of digital documentation, errors can be systematically identified, corrected and avoided in the future.

That is why KraussMaffei decided to use Operations1

- ✓ High user friendliness
- ✓ Wide range of functionality
- ✓ Platform infrastructure
- ✓ Strong industry references
- ✓ Continuous further development of the software (SaaS)
- ✓ Scalability of the solution (e.g. modular structure, multilingualism)



"Thanks to Operations1, we save 67% of our documentation effort. This reduces the processing time at our Hanover site from 3 days to 1 day."

Phillip Duwe
Quality Engineer
KraussMaffei

The advantages at a glance

- ✓ Savings of 1,200 working hours per year
- ✓ Reduction of error possibilities through context-based checklists
- ✓ High transparency of the work progress
- ✓ Efficient verification in the event of queries
- ✓ Protection against potential complaints
- ✓ Visual worker guidance
- ✓ Possibility to use the platform as a solution for networked working along the entire value chain

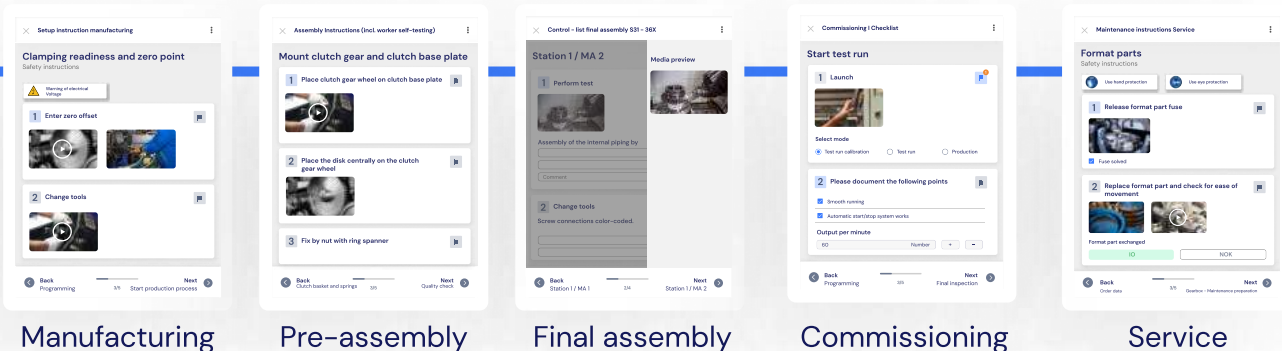
Outlook: End-to-end digitization of all production processes

KraussMaffei would like to continue the successful path it has started on with Operations1. Since commissioning was considered the biggest lever, it was the starting point for the complete roll-out of the software, which is now to be used as a platform for connected work across the entire value chain and, in addition to Hanover, across the international sites in Jiaxing and Sucany.

Next up is the digitization of service processes, followed by pre-assembly and final assembly. So the digitization journey of the leading manufacturer of plastics production equipment has only just begun, and there are still many treasures to be unearthed.

Hannover, Jiaxing, Sucany

Munich



5S / Internal audits and maintenance

Market leaders rely on Operations1 in commissioning

BRÜCKNER
MASCHINENBAU



ZÜND
swiss cutting systems

WAFIOS

Soudronic

KraussMaffei
Pioneering Plastics

Hundegger

GARANT MASCHINEN
MEMBER OF W&H-GROUP

Operational Excellence on the shopfloor

With Operations1, your employee-led processes become more secure, efficient and transparent. Increase your productivity, reduce error rates and optimize your operational processes flexibly and continuously.

Do you have any further questions? Do not hesitate to contact us!

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