

# DigitaliseSME Case Study – Digital Transformation in Manufacturing

## Increase the Efficiency of Products Through Data Analysis

Company: *BOGE KOMPRESSOREN Otto Boge GmbH & Co. KG*

<b>Business</b>	Production & Service (B2B)
<b>Company Size</b>	Over 250 employees
<b>Annual Revenue</b>	Over 50.000.000 €
<b>Sector</b>	<b>Mechanical Engineering, System Supplier,</b>
<b>Investment</b>	< 500.000 €
<b>Measurable added value</b>	Yet to be determined, because product and service are still new

The company BOGE KOMPRESSOREN has developed a completely new technology: the High-Speed Turbo Compressor (HST). This new product has applications in hospitals, in the food industry and in breweries. The HST compacts without the use of oil as a lubricant and as a coolant and it is therefore not only energy efficient, but also almost maintenance-free. The exchange of individual components, such as the engine, is also easily and quickly possible.

### Benefits of the New Product

The HST requires significantly less maintenance than previous products by the same company, leading to significantly less costs for the company after sales to keep the product effective. For the customer this also a considerable advantage, as the product is highly reliable.

### Digital Solution

Throughout the development of its product, the company has shifted its capacities from maintenance to create a new service in terms of data evaluation and machine optimization. The result of such shift was a new product, the HST, that relied on a digital technology that evaluates operating data the compressor collects and transmits.



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The machines can be monitored from a distance ("Remote Monitoring"). This makes it possible to make predictions about their future behaviour and apply any necessary changes accordingly ("Predictive Maintenance"). By continuously analysing the running behaviour ("Performance Report"), the manufacturer can find room for improving the performance of the machine. Further technical developments, which are constantly carried out by the manufacturer, or change in customer requirements can be directly implemented by exchanging components at the customer's site ("Continuous Implementation Program").

## Resources Deployed

The digital tools developed for data analysis are consistent: they have been designed so that they can always provide encrypted data while making sure that single components are easy to exchange.

A team of about 25 employees from within all departments of the company works on developing the technology of the HST and the services available with regards to the customer's perspective – due to the uniqueness of their tasks, they are not required to always follow standard corporate procedures and processes.

This investment was made with the expectation that a return would be made in a short time.

## The Result

The company has positively reversed the risk of a decreasing workload on its service technicians: the innovative solution developed offers the customer an advantage because the machines now become more and more efficient over their lifetime instead of getting worn out. This investment was made with the expectation that the expense will soon be economically relativized.

## Tips from the Experts

BOGE KOMPRESSOREN Managing Director Thorsten Meier was happy with the positive entrepreneurial experiences. Consequently he recommends daring to try new things - even if the way forward is not easy to predict: "Small companies particularly can have the courage to break new ground. They are usually able to react more flexibly to changes and work more flexibly as a team"

**Disclaimer:** This case study was collected by BVMW, DigitaliseSME partner in Germany, and its Mittelstand 4.0 Competence Center in Berlin. The original document, with this case study and others, is available [here \(German\)](#)



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