Predicting Demand with Reliability and Optimizing Storage at Hamberger

Knowing today what customers will order tomorrow:
This is how one company optimizes and plans for every aspect of its material procurement, production and logistics, i.e. the entire supply chain. Hamberger Flooring GmbH & Co. KG was able to employ reliable, accurate forecasts to reduce its storage costs while increasing customer satisfaction.

One Data

A full overview of demand at all times

How can storage costs be optimized and customer satisfaction be improved through the use of more accurate information? This question was answered during a project headed by One Data for Hamberger Flooring GmbH & Co. KG, Germany's market leader for parquet flooring.

The company's goal was to automate its forecasts for products and generate them much more quickly than they had done up to now. Another aim was to improve the overview of its stocks, enabling the firm to optimize its supply chain and adapt its processes as required depending on the market situation.

Hamberger tasked One Data with developing a new forecasting solution that is now being used with great success.

Hamberger: active in more than 90 countries

As a subsidiary of Hamberger Industriewerke GmbH – founded in 1866 and now being managed by the fourth and fifth generation of the family – Hamberger Flooring GmbH & Co. KG consolidates all flooring activities under its HARO brand.

The portfolio comprises parquet, laminate and cork flooring as well as acoustics solutions for use in interior design.

With 2,600 employees, the corporate group generates approx. EUR 350 million in revenue annually (as of 31 December 2022) and exports to more than 90 countries worldwide in addition to Germany, its largest single market.

Perfecting internal planning for each forecast

Hamberger had been using data-based forecasts for its production planning for some time. These forecasts set out future demand for flooring – and subsequently influence material procurement, production and logistics. Everything is planned and coordinated perfectly, so the goods ultimately end up at the customer's address at the specified time. "Flooring isn't usually mentioned in the same breath as AI and data science. However, the materials and all the underlying data are complex. This is why we were curious to find out how our forecasting solution would measure up compared to the customer's previous forecasts," states Maximilian Rahn, senior data scientist at One Data. "The project also shows that data generates added value regardless of the industry in which it is generated."

25%

improvement in stock quality

"The solution is almost perfect at meeting our expectations in terms of creating a reliable forecast."
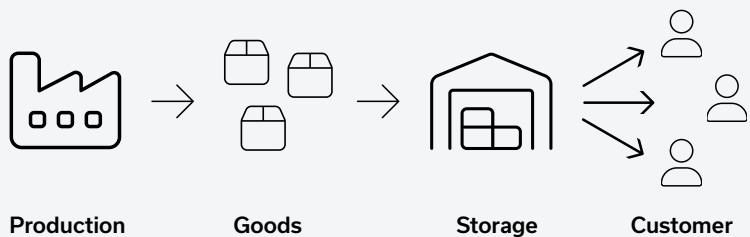
Richard Lehmuth,
Head of Production Planning and Process Management, Hamberger Flooring GmbH & Co. KG

Hamberger had been working with forecasts for production planning and management in the past. However, this took up to four days. In some cases, the result simply wasn't precise enough – leading to the following issues:

- If the forecast was too low compared to actual demand, the company would miss out on potential revenue.

- If the forecast was too high, this led to additional storage costs.

"In other words, we wanted to know if there was room to improve the quality of our forecasts. That's why we subjected our previous system to a barrage of tests. The solution developed by One Data assisted us with our comparison," states Richard Lehmuth, Head of Production Planning and Process Management at Hamberger Flooring GmbH & Co. KG.

Production **Goods** **Storage** **Customer**

Recalculating history

The first step for One Data and Hamberger was to go on a journey back in time: The partners exported data from 2020 into the forecasting solution developed by One Data. To render the data usable, it was first visualized, contextualized and connected.

This allows the solution to provide accurate and reliable forecasts. The next step was to demonstrate that in practice. The forecast results of the new forecasting solution and the results of the existing solution were compared with the actual recorded demand from 2020 – for 400 different products in the "parquet flooring" segment.

This led to a type of benchmark regarding the accuracy of the forecasts, with the following question then being asked: Which solution reflected the historical figures more accurately? To optimize the stocks based on the KPI "inventory quality", AI-assisted forecasts were conducted for 400 different products.

The result:

The One Data forecasting solution was able to improve the inventory quality by 25 percent. Furthermore, errors in forecasting fell sharply compared to the old solution, while it took only five minutes to generate a forecast for a full production cycle.

Ultimately, this means that Hamberger can, in future, use the new forecasting solution to optimize its stock planning process along the entire supply chain, unlock new sales potential, and reduce storage fees.

The forecasting solution by One Data enables the complete supply chain – from production to delivery to customers – to be optimized through enhanced stock planning.

*The **AI-powered Data Product Builder** from One Data is our basis for integrating data. It helps to improve data quality – which is essential for AI-assisted forecasts.*

"Transparency is important to us. We communicate which data we use and what we do with it. That creates trust."

Stephanie Sander,
Business Development Manager,
One Data GmbH

One Data also left a good impression thanks to a rapid roll-out: it took just three-and-a-half months to create the proof of concept and implement the solution. The next step involves factoring additional forecasting variables into the forecast as well as various content-related and technical add-ons. Furthermore, the accuracy of the forecasts will continue to improve as the volume of data grows.
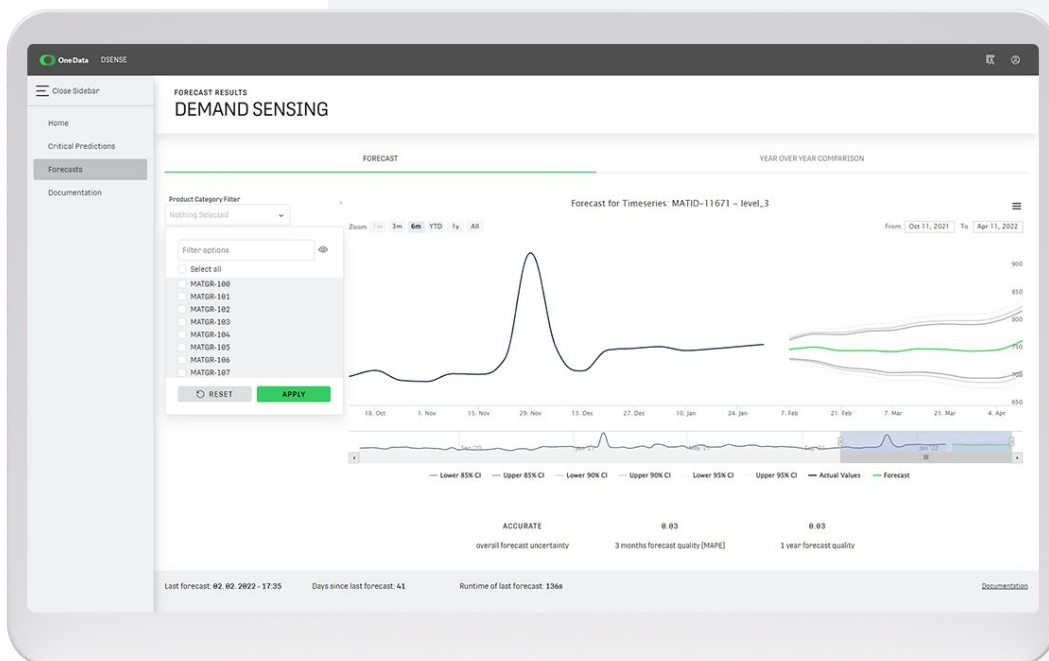
New production planning insights

Data science projects often unearth more information than is actually required for the task at hand. This was the case here: Hamberger tends to rely on the "make to stock" approach for its production planning. Production is based on the forecasts, with the warehouse being filled up first. However, the company sells certain flooring products only a few times per year, meaning there is comparatively little data available for them.

This is why the forecast for such products lacks accuracy – and the "make to order" approach (production based on incoming orders) is much more suitable. "We made sure not to overlook this. Our collaboration with One Data enabled us to clearly prove this correlation and convince our colleagues of the fact," states Lehmuth.

By the way:

The AI-powered Data Product Builder creates the perfect data foundation for an optimized supply chain every time: The technology creates a consolidated map of the supply chains across all sites, suppliers and IT systems.

This enables weak points to be identified, data connections to be disclosed and stocks to be optimized on an ongoing basis. It allows data to be used to create value within a very short space of time.

Interested in our expertise and One Data? Get in touch. We'll advise you in all aspects, on what you need for implementation, and the unique potential it offers for your company.

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