

OM Partners Case Study

VDM Metals
Supply chain transparency is the key
to continuous improvement





A big step towards proactive production planning

Over the past few years, the German metals producer VDM Metals successfully made the challenging switch from reactive to proactive production planning. This has led to shorter production lead times and a notable improvement in service, along with a marked decrease in required inventory. It's certainly a remarkable achievement, especially in view of VDM's very complex production network. "Supply chain transparency has been the key to making the switch, forging the path to continuous improvement," says Marcell Sehner, Senior Vice-President Supply Chain Management.

VDM Metals is a global producer of high-performance alloys, including nickel, cobalt, and zirconium alloys. Markets include the chemical process industry, oil and gas, aerospace, electronics, automotive and energy. In Germany, VDM Metals operates one upstream facility in Unna, where the melt shop is located as well as four downstream facilities in North Rhine-Westphalia producing bars, billets, sheets, strips, wire and welding consumables. Processes are extremely complex, involving numerous specific production stages, deploying more than 100 different alloys and producing relatively small, highly specific batches. The fact that some production stages are carried out by external partners makes the planning even more complex.

Reshaping the organization

"Production planning, production execution and customer requirements are closely interrelated," explains Marcell Sehner. "We aim at increasing our delivery performance and reducing our

lead times to better fulfill our customers' expectations. We knew that implementing a new production planning system was essential, but we also identified the need to redesign our organization from a functional to a process-oriented one."

Increasingly complex planning

This organizational change of perspective further emphasized the need for improved planning, which was increasingly challenged by a series of market developments. Marcell Sehner explains: "Global competition has increased significantly, putting pressure on resources and obliging us to reduce costs and become more efficient. This meant we needed to reduce inventory, among other things. Added to the requirements to cut lead times and boost delivery performance to improve service, it felt like a Catch-22. How could we reconcile these conflicting aims?"

'Too much air' in the supply chain

The solution was to meticulously fine-tune and optimize the entire supply chain. "We knew that we could make significant improvements in coordinating and aligning the different production stages," says Michael Schickentanz, Head of Operations Planning & Master Data Management. "Intuitively, we sensed that there was still 'too much air' in the supply chain. Unfortunately, we couldn't really put our finger on it, making it difficult to attune the different production units to accelerate throughput."

Bottlenecks revealed, opportunities seized

The breakthrough came when VDM Metals met with OM Partners. A project was launched to model the entire value chain in the OMP

"Supply chain performance analysis allows us to continuously implement further improvements."
Marcell Sehner, Senior Vice-President Supply Chain Management





Plus software system, including all production details. A bottleneck-oriented finite capacity planning analysis showed opportunities to better align the production stages. Michael Schickentanz explains: “For the first time, we could identify where inventory in production would rise unintentionally due to an imbalance between order backlog and plant performance. We could also predict which machines might encounter material shortages. OMP Plus provides a transparent view giving planners the opportunity to test and evaluate alternatives. This is how we managed to cut overall lead times and reduce our work-in-process.”

Reserving capacity from start

One of the biggest gaps was found at the offer stage. Schickentanz: “Before we implemented OMP Plus, we had been estimating lead times based on past experience. Now, the delivery date calculation for inquiries as well as orders is based on a transparent material and a capacity check.”

Much more satisfying

Supply chain transparency has also helped to overcome the initial resistance to the changed approach. “Some of the planners were very skeptical about this new way of working,” says Michael Schickentanz. “I know it’s natural to resist change, but now the organization can see that OMP Plus effectively improves the production planning. Planners must make vital decisions, and because of the transparency of the planning system they can do that in a much more profound way. We have also seen skepticism among production unit managers. Here too, we have managed to convince with transparency and flexibility. The tool shows exactly what happens upstream and downstream, so managers can better

understand why decisions are made, and can even make suggestions for further optimization.”

Propelling continuous improvement

Marcell Sehner confirms: “Using the planning system is like holding up a mirror. It clearly reflects our successful as well as our less successful planning decisions. This allows us to continuously implement further improvements. As a result, confidence in the processes and the system grows, not least thanks to the strong support of our top management.”

“The system clearly highlights bottlenecks and provides opportunities for planners to try and evaluate alternatives.”

Forecasting system implemented in six months

After completing the detailed production planning project, VDM Metals went on to implement Forecasting and Sales & Operations Planning to support the company’s mid-term and budget planning. “We again had to manage some change issues,” says Michael Schickentanz. “But we’ve been able to convince the process owner by demonstrating the added value of advanced forecasting features such as comprehensive statistics, collaborative loops, graphical visualization and customizable reporting.” Both budget forecasting and rolling monthly forecasting have been implemented in less than six months. Implementation of Sales & Operations Planning is ongoing, and due for completion by March 2018.

“Planners have seen that the proactive way of working is much more satisfactory.”
Michael Schickentanz, Head of Operations Planning & Master Data Management



New opportunities being explored

VDM Metals is exploring additional opportunities to further improve the supply chain. One of the strategies being evaluated is differentiation by market. Marcell Sehner elaborates: "VDM Metals works for both the automotive industry and aerospace, but these are very different sectors. Automotive is relatively predictable, with a high degree of standardization, requiring less detailed planning than aerospace where we work within framework agreements."

The need to develop a strong inhouse team

Supply chain optimization projects such as those carried out at VDM Metals require the full support of top management to be successful. Marcell Sehner: "Our management supported us from the start, and it still does. This allows us to put together strong project teams of highly skilled people throughout the entire organization. We are also very lucky to have a top-quality inhouse IT department for our SCM tools. The existence of a solid and reliable data management system is equally indispensable."

About VDM Metals

VDM Metals is an internationally leading producer of nickel, cobalt and zirconium alloys in addition to special stainless steels. Founded as Vereinigte Deutsche Metallwerke AG in 1930, it currently operates facilities in Germany (Unna, Werdohl, Siegen, and Altena) and the United States (Florham Park, New Jersey and Reno, Nevada). VDM Metals employs about 1,900 people worldwide.

Project details

OMP Plus was introduced at VDM Metals at its plants in Germany. The features implemented include:

- Meltshop scheduling
- Internal upstream and subcontractor planning
- Downstream planning including campaign planning and scrap returns
- Inquiries and orders based on a capable-to-promise (CTP) system
- Budget forecasting and rolling forecasting
- Sales & Operations Planning (due end of March 2018)

About OM Partners

OM Partners is the best-in-class software and consulting company that offers Supply Chain Planning Solutions for the metals, plastics, floor covering, paper & packaging, chemical, pharmaceutical, food & beverage, consumer goods and other industries worldwide.

OM Partners has developed into one of the most important players in the Supply Chain Planning market since its founding in 1985.

OM Partners' flagship product, OMP Plus, is a comprehensive solution for all planning related issues, from the strategic down to the operational level. OMP Plus makes integrated demand planning, supply planning and scheduling a reality.

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