

Schenck Process with CIDEON and BDF

## New SAP PLM Solution as a Process Booster

Digital transformation in the German medium-sized business sector is growing. Innovative technologies are elevating automation to a new level. At the same time, it is clear that the adaptation of business processes always starts with the customer as well as the employees. But how can higher levels of automation contribute? Until recently, Schenck Process worked with a fragmented IT system landscape and lacked a standardized PLM solution. Due to the existing and positive experience with SAP PLM (CAD Desk) at the company's headquarters, Schenck Process wanted to standardize its order management. At SPG, it quickly became clear that a move away from legacy IT systems had to be initiated. It also became clear that UK and Czech subsidiaries in particular would need to work with the same Engineer-to-Order (ETO) process in the future.

### Global Player with Innovation Potential

Digital platforms and tools are taking over routine activities and are liberating resources for new, creative tasks. The use of state-of-the-art software solutions leads to greater efficiency, flexibility, and profitability. This is particularly evident in terms of innovation, productivity, quality assurance and profitability.



### Schenck Process Group (SPG)

With over 1.100 employees, more than 300 patents and locations in Europe, the Middle East and Asia, the Schenck Process Group (SPG), headquartered in Darmstadt, is a leading global supplier of sustainable products, integrated solutions, and services for process-critical dry bulk applications. The group focuses on chemicals and high-performance materials as well as infrastructure and energy market segments. Its broad product portfolio includes solutions for industrial weighing, dosing, conveying, grinding, and classifying, mixing, and blending as well as associated digital applications. For further information, visit [www.schenckprocess.com](http://www.schenckprocess.com).

The following showcase project demonstrates how this is achieved in terms of project scope and collaboration with a wide range of stakeholders: Schenck Process is a global market leader in sustainable and integrated measurement and process solutions. In collaboration with CIDEON and BDF, a team of digitalization experts, the digital development was rethought in a completely new and holistic way. The initial implementation took place in the United Kingdom and the Czech Republic. Redundant, high-volume processes were identified for automation. As a result, an SAP S/4HANA system and SAP Engineering Control Center (SAP ECTR), and SAP Product and Process Governance (SAP PPG) were implemented at the same time. One thing was always important: taking the employees along on the digital journey. "We analyzed several options as part of a short selection process and ultimately made a conscious



## Connecting and scaling established business models

decision in favor of these solutions based on our positive experience with SAP PLM (CAD Desk) and the opportunities offered by PPG and ECTR," says Martin Schütz, Director Engineering EMEA at Schenck Process.

### Process-Oriented Integrated Plant Engineering Solution

Digital transformation, data-driven, end-to-end process landscapes, and an innovative entrepreneurial spirit enable the connection and scaling of established business models. Product lifecycle management is the pinnacle of digital engineering, especially for midsize companies with corporate-like organizational structures. The innovation potential here primarily lies in the transformation of fragmented system landscapes into a holistic and scalable IT platform structure. Top-down definition, state-of-the-art and certified software solutions, workshops, and key user training are further drivers of success, whilst fitting partnerships and collaborations can make a significant contribution to just-in-time innovation success.

Schenck Process is an excellent example in this regard: "With the introduction of an integrated SAP PLM landscape and by significantly consolidating our business processes in several international locations, Schenck Process has reached an important milestone together with its competent partners BDF and CIDEON," says Martin Schütz, summarizing the project for the new IT system architecture in partnership with CIDEON and BDF. With the new SAP PLM solution as a "process booster", all data flows and processes are now managed digitally right from the start. As a result, company-wide processes can be monitored much more effectively. This leads to fewer bottlenecks in day-to-day business and the effective and collaborative use of engineering, production, and machine data. Furthermore, an engineer-to-order (ETO) process was implemented in

#### Challenges

Reduction of administrative effort and error rates in data management. Agile implementation of a "single source of truth approach" with a holistic and cloud-based software solution to increase connectivity and automation across the supply chain and customer journey.

#### Approach

SPG's project requirements were assessed for feasibility using a new IT solution. The feasibility analyses (PoCs) were implemented using best practice methods. Simultaneous implementation of SAP S/4HANA system, SAP Engineering Control Center (SAP ECTR) and SAP Product and Process Governance (SAP PPG).

#### CIDEON Solution

SAP ECTR interface to Inventor, SOLIDWORKS and AutoCAD, other CIDEON process tools such as the Conversion Engine, the Enhancement Suite, and the installation of the SAP Visual Enterprise Generator.

#### CIDEON Service

Process consulting and conceptual work, management of CIDEON/BDF teams, implementation, configuration, and data migration. Administrator, end-user, and micro-training as well as solution support.

#### Outcome

A consistent database, a private cloud-based system solution and cross-departmental collaboration across planning, engineering, quality assurance, manufacturing and distribution lead to increased efficiency, productivity, and profitability.



an S/4 Greenfield environment using SAP PPG, enabling a new plant engineering solution to see the light of day for the first time.

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## Efficient PLM and engineer-to-order process in the cloud

### The Objective Clearly in Focus

"Teamwork, regular exchange within the sub-projects and interdisciplinary meetings, a high degree of transparency in the implementation of the project as well as cost transparency and the fair handling of change requests very quickly proved to be the cornerstones of the project's success," says Schütz. But where did the journey lead? Schütz answers: "We wanted to establish an efficient PLM and an effective engineer-to-order process in the cloud in a high-quality and process-oriented total plant engineering solution. That was our goal."

It all started with the selection of suitable process consultants and software developers. CIDEON and BDF were identified as suitable candidates, because both companies had a long history of successful collaboration on a wide variety of projects. And also, with regard to the implementation of an integrated and process-oriented solution. The team, in which CIDEON as general consultant has the overall operational responsibility, defined two workstreams (sub-projects), first sub-project 1 "SAP PLM/PDM" and then sub-project 2 "Global Engineering". This was followed by a Proof of Concept (PoC) to test the functionality of SPG's project requirements with a new IT solution. The implementation of the PoCs in both sub-projects was based on best practice methods. It quickly became clear that the new SAP S/4HANA as a scalable, modern cloud ERP system provided a strong basis for replacing the existing legacy IT systems at Schenck Process. It also became clear that the SAP Engineering Control Center (SAP ECTR) and SAP Product and Process Governance (SAP PPG) were other essential solutions for the overall success of the project. Finally, as another project-specific requirement was that the two company sites would be the first to work with the new SAP S/4HANA system with an identical engineer-to-order process.



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Martin Schütz, Director Engineering  
EMEA at Schenck Process

### Digital Testing Environment: A Project Between "Agility and Wave"

In order to avoid planning errors, the BDF/CIDEON model factory was used, an exemplary system for the agile verification of defined processes. This process model, consisting of process consulting and system verification, makes it possible to eliminate cost-intensive try-and-error approaches in the future customer system in advance, which can significantly increase the economic efficiency of each individual project. The simulated process results were

PROCESS CONSULTING

ENGINEERING SOFTWARE

IMPLEMENTATION

GLOBAL SUPPORT

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## Consolidated processes for all subsidiaries

then discussed in several workshops and then gradually adapted by the SPG development team and promptly implemented in several waves with the project teams. "With the model factory, we have a first-class test environment, errors have hardly any economic weight, and we can work creatively, efficiently and, above all, flexibly," explains Michael Zimmer, Senior Project Manager at CIDEON, adding: "It is an efficient way to prove that what we have planned actually works. All of this increases customer loyalty and saves valuable capacities and manpower." The first development stage, known as Wave 1.0 for short, describes the successful implementation of SAP ECTR and CAD integrations by CIDEON as well as SAP PPG by BDF. In Wave 2.0, Schenck Process is focusing on the further optimization and automation of processes in the near future - for even more speed and efficiency.

### Flagship Project Takes Shape: Using Data Effectively

During the process modeling phase, the consultants from CIDEON and BDF initially focused on the core processes at Schenck Process, in product lifecycle management. After all, a consistent PLM landscape with SAP allows product data to be shared and processed not only within departments, but also across divisions and from any location. Processes can be effectively integrated, which means that the connected data also represents real added value for other departments. The cross-functional exchange of information leads to new levels of efficiency regardless of the location of the project team and paves the way for a holistic business management. "A PLM system fosters company-wide collaboration among everyone involved in the creation and delivery of a product or plant. This creates greater efficiency and leads to higher productivity," explains Martin Bentin, who is responsible for strategic account management at CIDEON and has been supporting the Schenck Process Group for many years.



### Added Value for Schenck Process

- **More innovation, productivity, quality assurance and profitability** through consolidated and optimized processes in a common global SAP S/4HANA for all subsidiaries as a starting point for future expansions.
- **Increased customer centricity** through fast and seamless interaction for efficient aftermarket processes with short response times.
- **Efficient data model, fully scalable approach.** Increased process efficiency, harmonization and growth with minimal overhead. Consistent end-to-end process design and automation of document input and output - all from a single source.
- **Simplified company-wide processes.** Enable a more collaborative and integrated way of working. Deploy SAP ECTR to hundreds of engineers worldwide. Reduce reliance on "home-grown" solutions. Seamlessly integrate new acquisitions.

### Holistic Customer Solution in Focus

Schenck Process focused on three areas: First, the CAD data had to be processed. SAP ECTR was the core solution because it allows all engineering data to be integrated and merged with other data in the private cloud or on-premise. "Other benefits are immediately apparent in change management, plant construction and planning as well as in production, IT, and product documentation. The increase in efficiency is the result of the elimination of duplicate data maintenance. The administrative effort has been reduced and the data quality massively increased," the CIDEON project managers confirm in unison. In addition, SAP ECTR eliminates the need for certain interfaces, as the data can be transferred directly from SAP. "Another significant



## Mental transformation and modern technology

advantage is the complete and transparent overview of bill of materials, material data and technical drawings that is always up to date," emphasizes Zimmer. This reduces the complexity of the documentation for machines and plants. At the same time, the data was transferred to SAP PPG. This data can now be accessed in logistics as bill of materials. The third PLM focus concentrated on the processing of documents using SAP DMS and SAP PPG for structured storage and utilization of the existing database. This last process step completed the customer solution. Finally, the interfaces to Inventor, SOLIDWORKS and AutoCAD were implemented in an agile manner under the leadership of CIDEON, other CIDEON tools such as the conversion engine and the PDM import were integrated, and the SAP Visual Enterprise Generator was installed. But what does all this mean holistically and from the customer's perspective? "With the end-to-end SAP PLM solution from CIDEON and BDF, based on the modern SAP S/4HANA private cloud architecture, Schenck Process is setting standards in terms of IT strategy and PLM process digitization," summarizes Martin Bentin, Head of Key Account Management at CIDEON. The holistic solution is suitable for companies of all sizes - "from midsize companies to large corporations," adds Bentin.

### Empathy and Communication as a Strategic Success Factor

Openness, transparency and trust are important cornerstones of digital transformation. But that alone is not enough. Empathetic communication, understanding complex tasks and applying solutions are skills that characterize strong and interdisciplinary teams. The focus is on dialogue, push communication is becoming less important, and mental transformation is just as important as modern technology. This was clear to everyone involved in the project from the very beginning.

Fairness, reliability, reciprocity and rule-based feedback mechanisms are other aspects that were also essential for the success of the project at SPG. After the successful implementation of the new IT system architecture, the key users were trained according to CIDEON's train-the-trainer concept. Key users were able to gain initial experience in a test phase in order to make "early adoption" as easy as possible. This was followed by end-user training and close support through real coaching - CIDEON's hypercare. In the short term, this led to a minimization of productivity losses and error rates and, in the medium term, to an increase in efficiency, productivity and profitability. So, did communication really and adequately contribute to value creation? Martin Schütz, Director Engineering EMEA at Schenck Process, comments: "The communicative training programs offered by CIDEON were immediately available, they were very well received by the employees at Schenck Process, and the necessity and motivation for 'change' were firmly anchored in the minds of everyone involved in the project."



Schenck Process headquarters in Darmstadt



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## More scope for more demanding activities

### Outlook: The Manufacturing of Tomorrow

A new era has begun for Schenck Process. In the future, the company will be able to adapt even better to individual customer needs in network environments. Emotional intelligence, social skills and creativity can be better utilized and promoted in the Schenck Process teams - there is more freedom for more demanding activities. This also protects the health of employees and increases the resilience of the company as a whole. What are the next steps? More sites are to be digitally integrated and connected. The CIDEON Conify software solution has been put on the agenda. This ensures the efficient connection of data and the automated PDM-compliant output of configured CAD data. A Configure-to-Order (CTO) process, i.e. an engineering method in which a product is configured as required by selecting from a range of predefined options, is also to be introduced. Everything is rounded off by extensive certification of all new solutions. All of this promotes international collaboration via engineering platforms and forms the basis for trust, greater added value, and additional benefits.

How does Schenck Process access the new status quo? "Integrated system solutions are more convincing than multi-system landscapes. The former do not lead to duplicate data storage and redundant structures, coordination and interface problems, additional administration work and decoupled data storage," concludes Martin Schütz: "Integrated system solutions represent integrated data models and make it possible to work from engineering directly into logistics in an agile and technologically consistent manner

at all times with a consistent database." Schenck Process is looking forward to the continued cooperation and further enhancement of its PLM strategy in order to continue to operate successfully in the market for its customers with the usual high quality and efficiency.



### About CIDEON

CIDEON advises and supports companies in optimizing their product development processes – from the initial concept through to engineering, production and services. CIDEON's innovative solutions ensure continuous data flow along process chains making data accessible and cost-effective throughout the company. In this way, CIDEON's customers can fully exploit the potential of digitalization to benefit themselves and their clients. CIDEON employs more than 300 staff at 13 locations in Germany and Austria. It is part of the Friedhelm Loh Group, a globally successful Group with more than 12 production facilities and over 95 subsidiaries.

Further information can be found at [cideon.com](https://cideon.com) and [friedhelm-loh-group.com](https://friedhelm-loh-group.com).

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