AGCO introduced Apriso’s FlexNet solution as an integrated MES into the AGCO SAP System. Infosys Lodestone’s MES team developed a customized, fully SAP-integrated solution. The success of this project led AGCO to implement the system for all machines in the entire component manufacturing area of Fendt®, AGCO’s most successful brand.

**AGCO**

With roots firmly established in the farm equipment industry, AGCO has a brand heritage reaching back to the mid-1800s. AGCO was established in 1990 with the purchase of Deutz Allis Corporation from German-based Kloeckner-Humboldt-Deutz AG. Since then, AGCO has become a worldwide farm machinery company through market growth, strategic acquisitions and cutting edge agricultural solutions.

As a leading global manufacturer of agricultural equipment, AGCO offers a full line of tractors, combines, hay tools, sprayers, forage and tillage equipment, which are sold in more than 140 countries worldwide through one of the largest distribution networks in the industry and are led by four core brands: Fendt®, Challenger®, Massey Ferguson® and Valtra®.

Technical diversity, multiple brands, and global distribution strength are the keys to AGCO’s growth strategy. With generations of brand experience AGCO continues to provide innovative, high-quality farming solutions around the world.

**Summary**

Company success is only achievable if all responsible employees receive important key performance indicators (KPIs) and critical information at the right time. KPIs can be used as a strategic planning instrument and to manage daily operations by using the transparency they offer. AGCO is aware that they have to increase the efficiency of their production processes if they want to increase performance. Increasing efficiency means using resources most efficiently. Measuring efficiency with a Manufacturing Execution System (MES) means to acquire productivity, machine utilization and quality information and to analyze them under business economic aspects.

Hans-Bernd Veltmaat, Senior Vice President of Manufacturing and Quality, AGCO

This is the smoothest go-live I have experienced in my career. It looks like we have developed a solid basis for our future projects.

Thomas Müller, MDA/PDA Project Manager, AGCO

Infosys Lodestone’s experience in the automotive sector, a committed and qualified team and the excellent cooperation contributed to a successful implementation of a system that allows us for more transparency in our daily shop floor management and enables us for continuous process improvements.
AGCO Globe Core MDA/PDA Project

Infosys Lodestone started in April 2009 with the Globe Core program to implement an SAP ECC and FlexNet-based solution in the component manufacturing area of Fendt® - AGCO’s most successful brand - based in Germany.

The MDA/PDA project was part of the program and focused on a pilot data recording system for the more than 50 machines in the new manufacturing hall. Processes and work flows within this manufacturing hall have been optimised according to lean manufacturing principles and a system solution was designed and implemented to support the work flows. In this framework the chance was taken to also have a system implemented that significantly enhances machine data acquisition (MDA) and production data acquisition (PDA) and delivers Key Performance Indicators (KPIs).

Initial Situation

The durations and reasons for the machine down times and scrap reasons were being captured manually (paper work). This high work effort still allowed delays in information delivery and data loss. This meant that machine statuses were not unified or precisely defined, leading to problems with calculation of machine real production time. KPIs could not be precise or used to compare different machines. Order details and work instructions delivered in paper form meant there was no overview of the current situation on the shop floor available (i.e. which machines were working, which were in downtime or error).

The Business Objectives

- Automatic gathering and analysis of production and downtime signals to have a standardized and objective data basis of the production process
- Transparency of machine downtime reasons to trigger continuous improvement process and increase performance
- Simplification of plant maintenance processes by providing detailed machine indicators
- Simplification of machine investment decisions by providing specific KPIs
- Quality improvement/scrap prevention
- Limit usage of papers in the production process

The Solution

A series of workshops with business process owners gathered key requirements, identified the main issues and defined business flows. A complete, integrated solution was designed and configured over 12 months and consisted of two parts: MDA and PDA.

Both solutions can be used as templates for future rollouts. Standardization in machine status reporting and classification allows comparison of all machines and different segments ensuring that all KPIs will be normalized and comparable between different factories. The biggest advantage of the MDA solution is the possibility of linking different types of machines and plcs. The PDA solution is linked directly to production order execution. Responsible for scrap classification and order information gathering, the PDA solution helps to improve quality and reduces delays in information delivery.

Modules built based on client requirements included shop floor screens to gather/display production data, automatic calculation of production KPIs, and shop floor overview to monitor machine statuses in real time. The system automatically generated reports via electronic mail and archived historical data.

The Benefits

- Extensive automation of all information flows within the component manufacturing area with increased transparency and reduced error rates
- Contributions to AGCO’s internal continuous improvement program, through automatic delivery of top downtime reasons to shop floor management
- Clear improvements in data structure and consistency with enhanced reporting through automatically generated reports and facilitated delivery of KPIs. MDA/PDA solution offers a single point of truth approach by applying the same basis for OEE calculation for all machines
- Productivity of the manufacturing team increased significantly. Future investment decisions based on a solid productivity reporting basis

Infosys Lodestone Contribution

Infosys Lodestone played a leading role throughout all program phases. Infosys Lodestone was engaged in multiple Project and Integration Management roles responsible for various functional team leaderships, hands-on delivery of solutions from blueprint to post-go live support, planning and managing of data migration and cut-over activities, providing ABAP and other technical services for the project on site and near shore.

The pilot MDA/PDA project was managed and supported intensively by Infosys Lodestone. This includes the support of business processes as well as the implementation of a combined SAP and FlexNet solution.

Why Infosys Lodestone

Infosys Lodestone is a global management consultancy, committed to designing and delivering solutions that enable companies to thrive in today’s complex business environment.

Infosys Lodestone was chosen because of its deep automotive industry, technical and functional expertise combined with its well proven program management methods enabling AGCO to realize business value with minimum risk. Extensive experience coupled with high quality standards provided the foundation for a successful partnership with Infosys Lodestone on this project.