



Mercedes-Benz HighPerformanceEngines Ltd., Brixworth
Pole position for VODAFONE McLaren
Mercedes – with it.automotive

»The success of the VODAFONE McLaren Mercedes team depends on our ability to develop and assemble racing cars and deliver them to the race circuits at high speed. Thanks to itelligence's integrated SAP solution, we have the latest data and information at our fingertips at all times. This immediate availability helps our project teams get top-performing engines and continuous improvements onto the race track faster – decisive advantage for the VODAFONE McLaren Mercedes team.«

Martin Whitmarsh, CEO for Formula 1 at the VODAFONE McLaren Mercedes team

Those, who want to be the world champions, have to be better than the rest.

Why should our IT have less power than our engines?

When Fernando Alonso and Lewis Hamilton step into their VODAFONE McLaren Mercedes cars at the international race circuits, there is one thing they can rely on wholeheartedly: Behind the scenes, the entire team will be working at high speed to keep the nippy Formula 1 cars in top form at all times. To achieve this, Mercedes-Benz HighPerformanceEngines (HPE) Ltd., the British engine constructor for the VODAFONE McLaren Mercedes team, works closely with the Mercedes-Benz technical team in Fellbach near Stuttgart. To perfect this cross-border team work, Mercedes-Benz HPE now relies on the concentrated power of SAP: With the mySAP All-in-One solution it.automotive from itelligence AG, the Formula 1 specialists can hold their own in the international competition.

The itelligence solution for the automotive industry does not just integrate the data from the programme development, design, assembly and production in one system – it can also network the 400 engineers, developers and managers at Mercedes-Benz HighPerformanceEngines Ltd. in almost real time. Faster information, faster decisions and better engines: With this strategy, the VODAFONE McLaren Mercedes team aims to maintain a top position in the league of champions – with it.automotive by itelligence.

Mercedes-Benz HighPerformanceEngines Ltd.

The secret of the VODAFONE McLaren Mercedes team's success is the production of its own engines. These engines are manufactured in the British town of Brixworth – by Mercedes-Benz HighPerformanceEngines Ltd., a company belonging to DaimlerChrysler AG. Since 1993, Mercedes-Benz HPE has been responsible for designing, developing and building the Mercedes-Benz Formula 1 engines in coordination with Mercedes-Benz. The 350 highly specialised engineers, developers and managers in Brixworth are supported by the technical motor sport development group in Stuttgart. Together, they plan to overtake their rivals and position the Mercedes-Benz commitment to Formula 1 on an even more successful platform for the long term.

Fast coordination – faster engines

Every race weekend sees the VODAFONE McLaren Mercedes team working at full speed, with the specialists preparing up to six engines per race. If any of these unique engines do not survive the rough practice and qualifying rounds, the next race start is still taken care of – replacement engines are available immediately. If one of the high horse power engines is damaged during testing, the technicians decide which parts are to be reused, discarded, exchanged and overhauled. The technicians are also constantly in touch with the rest of the team, as well as the design and production teams: In this high-speed business, a rapid exchange of data and information is a decisive source of competitive advantage. Those leading the pack in terms of technical preparation are mostly those who lead the races as well.

it.automotive – an investment in the future

Mercedes-Benz HighPerformanceEngines Ltd. has been relying on an IT landscape to support fast information exchange within the team for 20 years. Over the years, various legacy systems had accumulated – but were unable to keep pace with the rapid challenges of the fast-moving industry. By opting for the mySAP All-in-One solution it.automotive, the company set a decisive course for the future, as Ola Kaellenius, managing director of Mercedes-Benz HighPerformanceEngines Ltd., explains: "By converting a large part of our IT landscape, we've created the basis for more efficient processes and improved data transparency. This, in turn, enables us to reduce costs and helps us focus on our strengths in the technical development – another building block in the future success of our Formula 1 agenda. We are certain that the investment will pay off quickly."



Kaellenius is spot on in his assessment. it.automotive does not only support project planning for the current and future engine development – this integrated solution can also be used to control design changes, assembly planning, warehouse stock checks and quality checks in the production phase in an optimum way, enabling technical improvements to be implemented more quickly. And the available development and production resources can be planned better as well.

Data and information – in almost real time worldwide

The project teams also gain faster access to the data for all engine parts. This is stored in a single, integrated database. The development status, batch data, quality information, production specifications, warehouse status and delivery status can thus be called up worldwide for each individual component – and in almost real time. Information about life-spans, sustainability, performance and the need for repairs, replacements or optimisation in production can be analysed

reliably. The connection of the company's CAD application also ensures that parts lists, CAD drawings and technical documentation are available at all times, reliably and in the latest versions.

The quantity structure created in the system enables a precise calculation of existing parts and engines. Together with the SAP planning function for these parts, the racing team is provided with precise budget planning and control.

mySAP PLM – for smooth-running engineering

All the data and documentation for the engineering change process are managed by the project teams in the PS system. Development statuses are planned in the SAP system, and new parts numbers and the product structure with the BOMs are managed in it. The CAD modelling is thus synchronised. "We are highly satisfied with the improvement achieved by integrating the systems for engineering, production and planning,"

Mercedes-Benz HighPerformanceEngines

Name:
Mercedes-Benz
HighPerformanceEngines
Ltd.

Industry:
Automotive

Products:
Development and
construction of Mercedes-
Benz Formula 1 engines

Company size:
over 400 employees

Head office:
Brixworth

reports Andrea Byrd, SAP project manager at Mercedes-Benz HighPerformanceEngines Ltd. "In the extremely fast-moving business of Formula 1, we had to define and use efficient processes and systems. itelligence offered us expert consulting with its industry knowledge and well-founded SAP competence. The itelligence team really worked shoulder to shoulder with our team throughout the whole project."

Go-ahead for Formula 1 – go-live for the system

The fact that it.automotive, based on mySAP All-in-One, would run so smoothly in all areas was not taken for granted in the implementation phase: The VODAFONE McLaren Mercedes team had to compete in 19 Formula 1 races during the year – including test phases and new developments. With this high workload, the implementation of the new system was not to present an extra burden. So the itelligence team took the resources at Mercedes-Benz HPE into account, providing the company with great support during all of the project steps. itelligence opted for transparency, maximum precision and sustainable quality checks in the implementation. Because of this approach, the SAP system reseller secured the company's unbounded trust. The managers were also immediately convinced by the price for the successful implementation: Thanks to the template approach, itelligence was able to guarantee Mercedes-Benz HPE completely fair conditions.

And there was yet another factor that ensured the joint success of the project: itelligence's integrated service approach. The entire solution for Mercedes-Benz HighPerformanceEngines is hosted at the itelligence data centre in Bautzen. And with good reason: With the outsourcing of the it.automotive industry software to the German data centre, the employees at Mercedes-Benz HPE can access all data from the locations

in Great Britain and Germany, as well as directly from the race circuits. And with this rapid pace of information, they can secure a decisive advantage in the competition: the fast construction and perfect configuration of the engines. So it's pole position for VODAFONE McLaren Mercedes – thanks to it.automotive from itelligence.

Facts & Figures

**Solution: mySAP All-in-One solution
it.automotive with the SAP modules:**

- Controlling (CO)
- Financial Accounting (FI)
- Product Lifecycle Management (PLM)
- Production Planning and Control (PP)
- Sales and Distribution (SD)
- Quality Management (QM)
- Plant Maintenance and Tool Making (PM)
- Project System (PS)
- VPM/CATIA interface
- SAP hosting for the entire system at the itelligence data centre in Bautzen

Project length: 15 months

Benefits:

- Faster access to the data for all engine parts in the integrated database
- Greater transparency and availability of all relevant information
- Worldwide access to documentation for each individual component in almost real-time
- Reliable analysis of life-spans, sustainability, performance, the need for repairs, replacements or optimisation in production
- Integration of the SAP software with the company's CAD application
- Consistent project and agenda planning

