



Services



Quality assurance using the e-Report

By Juan Manuel Márquez, Project Manager, Formel D

Countless Tier 1 and Tier 2 suppliers are involved in the complex process of manufacturing a car. This means that quality assurance includes an increasing number of incoming goods checks which the processing manufacturers prefer to put in the experienced hands of the Formel D Group. Extensive quality assurance measures of this kind produce large quantities of data which the innovative e-Report from Formel D displays in a particularly effective and user-friendly way while taking specific requirements into account. This puts OEMs and suppliers alike in a position to obtain a rapid overview at any time they wish and optimise their parts supply chain in a sustainable way.

With the newly developed e-Report, the Formel D Group shows that individuality and standardisation do not rule each other out at all, instead interacting in an ideal fashion in this innovative information and reporting tool. "We provide our customers with more than just data - we offer them valuable information to support them in supplier development and allow them to carry out cost optimisation with the necessary sustainability," explains

Juan Manuel Márquez, Project Manager at Formel D in Spain. Whereas the results were mainly presented in table form up to now, the new e-Report provides numerous viewing options ensuring the versatile usability of the data evaluated.

Always accessible and up-to-date

This service provider combines its sound quality assurance know-how with

state-of-the-art IT technology in this online-based tool. In the cloud storage system, the SSL-encoded data of each project party involved are available immediately after being entered by the experts from Formel D. This means that the OEM as well as the supplier can access the clearly presented information, the result being a uniform database which makes the parts supply chain considerably easier to control when disruptions occur.

The e-Report allows great swiftness of action at all times. For example, it offers the user the option of being notified of any status change by e-mail. When the tool is used in various different projects at the same time, the intuitive user interface allows the subjective prioritisation of the activities in progress. In this connection, the customer can also store project-specific notifications and define special intervals for them. Another advantage is the fundamental flexibility of the interface. It can be configured highly individually for each partner, allowing the user to generate specific information fields and fill them in accordingly.

Of course, applications of this kind require data transfer and the associated hardware to be as modern as possible. By taking the individual display formats of various mobile end devices into account using responsive web design, the e-Report offers considerably more added value than the systems in use up to now. Access to the information is not only possible via a web platform, but also via smartphones and tablets using the iOS or Android operating system. "This gives users the option of always having up-to-date data available, allowing them to easily follow the status of the sorting activities and view process-relevant test results," Mr. Márquez explains. "As a consequence, they are virtually on site and excellently informed at all times." In other words, the tool combines all the advantages of a mobile application.

Structured procedures

The user-friendliness characterising all aspects of the tool is to be found both in structure and content, and it makes for particularly easy handling. As part of the project history, for example, the e-Report saves complete procedural instructions and revisions, allowing users to go online at any time and access the reason for a certain activity as well as information on the component involved. This generally makes time-consuming superfluous, and the sorting process continues unchecked. If a contact person is ever required, the user will find the necessary contact details stored in the system. This innovative tool can also effectively tighten up the handling of release processes using standardised pre-prepared documents and digital signatures. In addition to all the other advantages, therefore, the tool also supports the contemporary ecological principle of the modern paper-free workplace.

Accelerated procedures in day-to-day operation are aimed at by the automotive industry in particular. Formel D has recognised this basic need, and it



meets it in the form of the e-Report. The straightforward, dynamic graphics and diagrams it offers ensure the immediate assessment of the situation and a rapid response. The program always provides different views to choose from, depending on which aspect is relevant for the issue in hand. The tool allows the creation of temporal curves as well as development diagrams with a specific filter function, the analysis of individual components and the identification of the error frequency. It can also be used to display the test results in the form of a pareto diagram showing that most effects can be attributed to a small number of causes. The aim is to isolate the error profile with the highest frequency in order to take the necessary countermeasures. As a result, the e-Report facilitates FMEA (Failure Mode and Effects Analysis).

Proactive quality management

In supplier development in particular, this procedure has proved its worth as it makes an active contribution to economic optimisation. Another special advantage is the aspect of sustainability in the sense of continuous improvement. By precisely monitoring further development and notifying the user of the progress of the testing process, the tool also documents the effects of the measures chosen. The e-Report thus reveals chains of cause and effect and makes it easier for users to draw the correct conclusions. "We call it the "lessons learned" principle," Mr. Márquez says. "This innovative tool helps our customers to act proactively in future instead of just reacting, thus minimising potentially disruptive factors in the parts supply chain right from the start."

While the e-Report represents a whole new generation of information tools, the older systems are still in use at present. "Our tool is also downwards-compatible and includes a download function

allowing the results to be output in the form of a conventional Excel table," Juan Manuel Márquez explains. "In this way, we ensure maximum user-friendliness." Flexibility of this kind is typical for the tool, which sets new standards and will in future be used by OEMs and suppliers worldwide to optimise the quality assurance processes for their parts supply chains in an effective and sustainable way. ■



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