

CASE STUDY



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Renault F1 Team Uses BPM To See Its Faults

Best Practices In Using BPMS To Gain Process Visibility

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EXECUTIVE SUMMARY

The Renault F1 Team competes on race times rather than new products or markets, but its business process management (BPM) implementation has lessons to impart that are useful to all kinds of organizations. In installing an event fault tracking process, the team kept things simple, used a narrow scope to start, and focused on quick project wins, helping to ensure its success. The system will capture faults trackside during races and will help trace them back to their sources within the design and manufacturing processes. Going forward, Renault F1 Team will expand the system to include integration to product life-cycle management (PLM) and additional user interfaces.

SITUATION: RENAULT F1 TEAM NEEDED TO KEEP RACECARS RELIABLE

When the Renault F1 Team's race team goes to compete, the contest boils down to one goal: winning races. In a sport where wins are normally decided by tenths of a second, faster yet reliable cars and better drivers are really the only strategic-level "business goals" for the team, and Renault can be sure that its opponents have these same goals. It's a bit hard to innovate around drivers — as with other sports, you get what you pay for. But keeping the cars reliable? That's where BPM comes in for the Renault F1 Team.

To understand more about the Renault F1 Team's BPM efforts, we spoke with Luca Mazzocco, the team's marketing manager, and Arnaud Boulanger, the head of process engineering.

RENAULT F1 TEAM DEMONSTRATES THREE KEY BEST PRACTICES

For its BPM initiative, Renault F1 Team chose Lombardi Software's TeamWorks BPM suite.¹ The first process deployed is for tracking faults with the racecar: When problems occur with the car anywhere in the organization, whether during testing, manufacturing, or a race, they are entered into the same fault tracking process. This process carries the investigation and resolution of faults back to their source, ensuring a consistent, correct resolution each time there is a problem and allowing aggregate analysis of the parts of the organization responsible for the most problems. The race team's BPM efforts illustrate important best practices. The Renault F1 Team:

- **Looked for quick wins by initially sticking to one process.** Renault F1 Team has big plans for BPM: integration to its existing PLM system, as well as new and unique user interfaces beyond the BPM suite's included user portal. The team will also deploy many other processes on the system over

time. But for the initial fault tracking deployment, it postponed integrations and other processes in order to start gaining benefits from its efforts as soon as possible. The work portals included with BPM suites are usually the quickest way to deploy user interfaces, and extensive integration with third-party systems can be temporarily replaced with manual steps. The flexibility of the BPM suite will allow desired changes to be implemented easily, with incremental work (not rework) later. The initial process deployment for Renault across all departments lasted about six months — a fast deployment, considering that it coincided with both the racing season and the long summer holidays when factory staff is least available.

- **Used the process consistently across departments.** The fault reporting process is a great example of one that probably wasn't thought of as a cross-functional process. Different departments would find problems that needed fixing and let the appropriate person know. But it's too easy in that ad hoc, email-supported process for faults to fall through the cracks, and there's no way whatsoever to gain visibility into the faults. In reality, fault reporting was being done in every department of the organization, and it only makes sense to ensure that it's done the same way. For companies with compliance issues related to their processes, BPM can be an enforcer of the "right way" to do things — for example, making sure that a contract is approved and signed by the appropriate people before services are delivered.
- **Highlighted the value of visibility to spot trends.** While the primary purpose of Renault F1 Team's BPM initiative was consistency and efficiency in the fault reporting process, visibility into the sources of problems was an important runner-up. Visibility into processes, much like the benefit of collaboration tools, can be hard to quantify because its benefits arrive serendipitously. Good reporting may help a manager spot a trend arising before it causes problems, but the manager may not look at the reporting and gain nothing. But when business process professionals know in advance how many problems are likely to be averted and what the cost of those problems is today, the benefits of visibility can be added to the business case for BPM.

Lessons Learned

Because a BPM approach is so flexible, many possible pitfalls can be corrected when they're detected without derailing the project. However, Renault F1 Team identified some items that are best tackled upfront:

- **Don't implement bad processes.** Whether you are working from existing models of processes or have created "as is" models for the purposes of BPM, don't miss the chance to iron out inefficiencies before beginning development work. Users will have to deal with some change as the process is automated, so it's a reasonable time to tune up the process. With that said, don't turn BPM into a process re-engineering effort — this could bog down the project and prevent the quick wins that should be your first priority.

- **Don't leave in wasteful steps.** As a corollary to the idea of improving process at the time of implementation, the process improvement teams used Lean-inspired techniques to carefully consider every step and participant in the process. Is this form field needed? Do three employees really need to approve this document? The result is processes that snap to completion even faster than an automated version of the old way of doing things.

NEXT STEPS FOR RENAULT F1 TEAM

Because the team kept the scope narrow for this initial project, there are still other significant areas of improvement that it can plan to target. In particular, it can expand its implementation by:

- **Integrating to additional systems.** Renault will be able to expand the reach of the system and improve productivity by integrating with PLM, allowing faults to be tracked back to the parts that caused them. This will allow for review of product design processes as part of fault review.
- **Supporting new devices.** Laptops are probably not the ideal form factor for a trackside pit crew. In the future, the system could be made available on ruggedized PDAs for better use by the technicians who are most important to kicking off processes.
- **Adding user interface modes.** Beyond the Web-based user interfaces that are easily created with many BPM suites, Renault F1 Team can add other places for users to interact with the system. The most likely place for this would be the Microsoft Outlook email client, but enterprise portal exposure of a process is also common.

ENDNOTES

- ¹ Lombardi was a Leader in the Forrester Wave™ evaluation of human-centric BPM suites in Q1 2006. See the February 24, 2006, Tech Choices “[The Forrester Wave™: Human-Centric Business Process Management Suites, Q1 2006](#).”