

Case Study

Williams wanted better scheduling. It got an end-to-end solution that it hopes will boost product quality and increase revenue.



"Avanade's solution will have a tremendous impact on the efficiency of the Aerodynamics Department."

-Shaun Whitehead, Head of Aerodynamic Process, Williams Group

Situation

Testing race car prototypes in a wind tunnel is an essential part of designing and building cars as fast as, well, the wind. Williams Group, the renowned Formula One racing organisation, knows this well—and also knows that such testing must be as efficient as possible, because Formula One regulates wind tunnel use. The challenge is to schedule testing while coordinating the calendars of the many people involved: designers, aerodynamicists, and model shop workers. Williams tried to meet this challenge with a collection of spreadsheets. To ensure the tunnel was always supplied, the team would build more test parts than they were likely to have time to test, raising costs unnecessarily. Then they made another choice: to create a better scheduling solution.

Solution

Williams and its strategic technology partner, Avanade, created that better solution, which they call the Wind Tunnel Test Planner. Originally intended to be a digital scheduler, the solution's scope expanded as Avanade showed Williams how a [digital workplace](#) solution could be a bigger contributor to productivity and business value.

The result is a comprehensive, end-to-end test-planning solution that provides workforce management, integration with the parts database, notifications of staffing needs, tunnel availability and reporting. There is even live video streaming so aerodynamicists can keep track of activity in the wind tunnel while they're in their offices, several floors away. Williams personnel access the solution through a highly intuitive dashboard that only shows them the schedules, notifications, and other data they need, based on their development team and roles.

The Wind Tunnel Test Planner, based on the Microsoft platform, was developed via an agile process that enabled Williams to give early feedback on the actual application as it was developed, as well as wireframes and prototypes during design, at every stage of development. "I was impressed with the volume of work achieved in every sprint," says Shaun Whitehead, Head of Aerodynamic Process at Williams. "We worked with Avanade like one, integrated virtual team."

Benefits

Boosts efficiency and design quality. Williams wanted more efficient testing with less downtime. It got it. Now personnel from various development teams know exactly when they need to be at the tunnel to keep tests running smoothly. Less downtime means more time for testing—which raises design quality.

Reduced weekend work, ensures better decision-making. Williams hopes to complete more testing in less time—enabling it to hopefully eliminate the weekend testing it currently relies on. Testing decisions can therefore be made, when relevant decision-makers are available.

Minimizes Changeover Times.

Changeover times of model parts can be minimized by optimizing the order of the wind tunnel runs. Better intelligence on the changeover times and the accuracy of their planning is also provided.

Saves on parts production. Because development teams know more precisely how much time they'll have in the wind tunnel, they also know how many prototype parts they'll get to test avoiding designing and building "wasted" parts that won't get tested.

Increases revenue. The solution generates cost savings—and revenue. Because Williams also leases wind tunnel time to external clients, it can now be more efficient in providing this service—and generate more revenue from it.



About Avanade

Avanade is the leading provider of innovative digital and cloud-enabling services, business solutions and design-led experiences, delivered through the power of people and the Microsoft ecosystem.

Majority owned by Accenture, Avanade was founded in 2000 by Accenture LLP and Microsoft Corporation and has 30,000 professionals in 24 countries.

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