



The McLaren F1 Team plans wind tunnel tests 70% faster with Smartsheet

The McLaren F1 Team uses Smartsheet to plan complex wind tunnel tests 70% faster, bringing upgrades to the car sooner and turning off-track innovation into on-track results.

“

The tunnel helps us understand the car. Smartsheet helps us understand the process and the planning.

”



Spencer Ford, Director of Machining and Additive Manufacturing at The McLaren Formula 1 Team

Customer:
The McLaren Formula 1 Team

Industry:
Manufacturing

Organization Size:
Mid-Market
(200-1,999 employees)

Region:
EMEA

Website:
mclaren.com

Few teams live closer to the edge of innovation than McLaren Racing. Founded by Bruce McLaren in 1963, the McLaren Formula 1 Team has since won over 200 Grands Prix, and collected 12 Drivers' World Championships and 10 Constructors' titles, including the 2025 Constructors' title. It competes today across four racing series, from Formula 1 to IndyCar but the philosophy hasn't changed: design the best car you can, test it faster than anyone else, and turn small improvements into results on the track.

The wind tunnel as a crucial test bed

At the McLaren Formula 1 Team's headquarters in Woking, England, the wind tunnel is where designs are put to the test. Inside this controlled chamber, engineers place a detailed scale model of the car and flow air over it to see exactly how it behaves at speed. They compare those results with computer simulations to check how well their digital models match the real world, then tweak designs to improve airflow, drag, and downforce.

Each wind tunnel test is a massive logistical effort involving team members from various teams like aerodynamics, model design, manufacturing, build and test. *"We're making thousands of parts simultaneously,"* says Spencer Ford, Director of Machining and Additive Manufacturing at the McLaren Formula 1 Team. *"And if we are late with any one of those parts, then we're unable to complete that test."* Every test slot represents thousands of hours of engineering work and expensive custom parts. Losing that slot or delaying a test can ripple straight to the race car, slowing down upgrades and affecting results on track.

Coordinating complexity with Smartsheet

The McLaren Formula 1 Team uses Smartsheet's Intelligent Work Management Platform to keep its wind tunnel program on schedule. The platform gives engineers a single view of who's doing what, when parts will be ready, and which resources need to be in place, accelerating execution without sacrificing precision. It covers the entire process—from planning tests and manufacturing model parts to scheduling shifts and tracking dependencies across departments—so nothing falls through the cracks. *"We can take all the processes and operations, put those together, collaborate with the team, and issue it,"* says Ford.

Smartsheet's intelligent work automation has dramatically shortened the time it takes the McLaren Formula 1 Team to prepare for a wind tunnel test. *"Smartsheet has made us up to 70% faster in planning,"* Ford shares. By planning tasks while designs are still being finalised, the team can start work the moment manufacturing data is released. Preparation is more detailed and organised, giving engineers confidence they're

Customer:

The McLaren Formula 1 Team's wind tunnel is key to testing new car designs, but coordinating thousands of parts and people to run each test makes it a complex operation.

“

We're making thousands of parts simultaneously, and if we are late with any one of those parts, then we're unable to complete that test.

”

Spencer Ford, Director of Machining and Additive Manufacturing at the McLaren Formula 1 Team



working on the right parts at the right time. That shared visibility builds trust across departments and ensures each test runs with enterprise-grade precision.

From planning precision to a podium finish

These gains in velocity and coordination don't just save time—they let the McLaren Formula 1 Team push through innovative design changes earlier, giving the team a real edge on the track. *"Workflow is absolutely critical. It's not a luxury. There are fine margins, and that is the difference between finishing first in the midfield or last,"* shares Ford. *"The tunnel helps us understand the car. Smartsheet helps us understand the process and the planning, and the collaboration, so we can deliver things faster to the track."* In a sport defined by milliseconds, Smartsheet helps McLaren orchestrate intelligent work at the pace Formula 1 demands.

McLaren plans to build on Smartsheet with an analytics dashboard that reviews each test package after it's complete. By seeing exactly where time was gained or lost and which processes worked best, the team can refine its approach for the next cycle—improving every run in the wind tunnel and every upgrade that reaches the car. *"If we're not moving forward, we're going backwards,"* adds Ford.

In a Nutshell:

Faster planning and coordination help the McLaren Formula 1 Team bring upgrades to the car earlier—protecting precious testing time, securing marginal gains that decide podium finishes, and setting the stage for data-driven improvements.

“

The tunnel helps us understand the car. Smartsheet helps us understand the process and the planning.”

Spencer Ford, Director of Machining and Additive Manufacturing at the McLaren Formula 1 Team