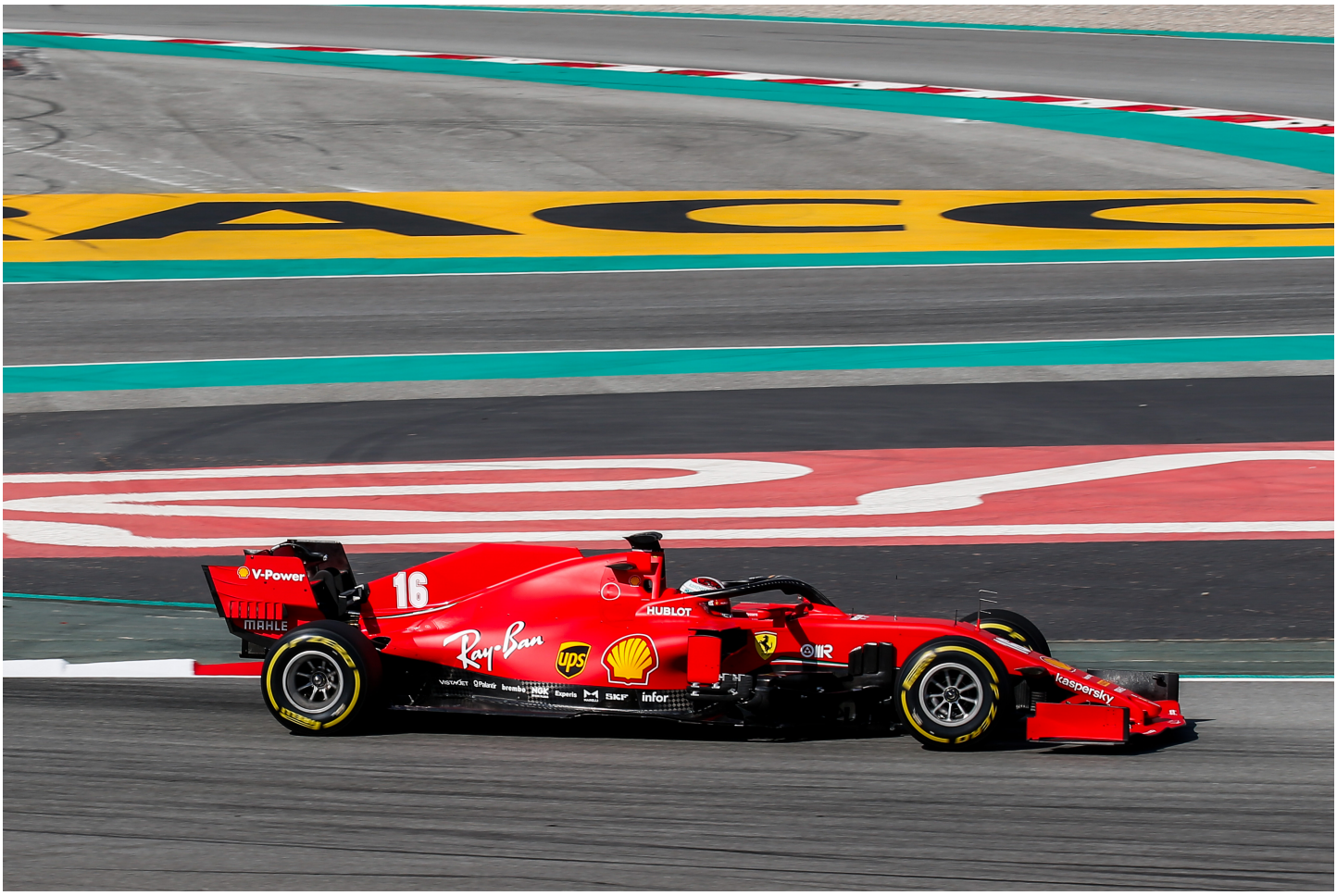
Palantir Technologies + Scuderia Ferrari Partnership Overview

2020

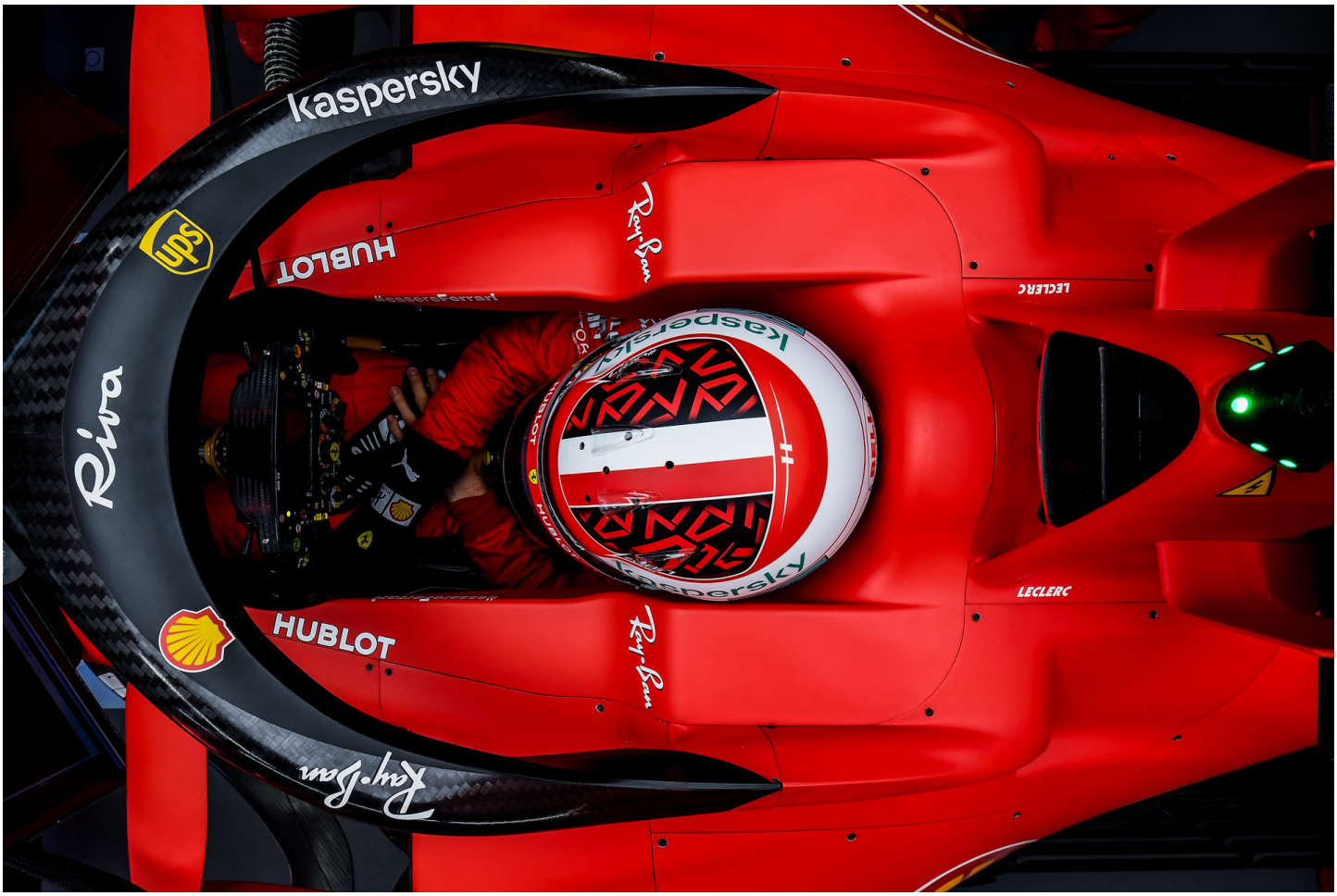


Palantir

Palantir

"As engineers — and particularly as Formula One engineers — we are inherently driven by data."

Pete May
Head of ERS Design + Development
Scuderia Ferrari



Palantir

Partners in Innovation

Formula One is a data-driven sport. Each car is fitted with many sensors that measure performance and reliability, and undergoes extensive testing before, during, and after each Grand Prix. Gathering data is nothing new to the sport, but the growing volumes of data generated have historically been stored across siloed systems.

"We make our decisions always based on data that is collected over the full lifecycle of a product's development and validation," said Pete May, Head of ERS Design and Development at Scuderia Ferrari. "That generally leads to us building up a labyrinth of data from disparate sources, and that data is often really difficult to navigate and get answers from quickly."

Since January 2017, Palantir Technologies has partnered with Scuderia Ferrari to integrate and analyze performance data in order to make faster and more data-driven decisions.

Palantir

Building a Digital Twin Through Data Integration

The volume and complexity of data increases every F1 season. Palantir Technologies has partnered with Scuderia Ferrari to integrate the constructor's data so that engineers are empowered to continuously interpret and analyze it.

"The real advantage of the Palantir platform is that we can quickly — with one single front end — analyze lots of different data from different sources," said Pete May, Head of ERS Design and Development at Scuderia Ferrari.

"In a single Grand Prix you have two hours, and two cars with thousands of real and virtual sensors, at an average of 100—1000 Hz per sensor," said Bianca Rahill-Marier, Commercial Lead at Palantir Technologies. "**We take that raw sensor data and model it into a digital twin that maps the data to the real-world concepts engineers understand and think in intuitively**, like vehicles, drivers, laps, speed, and pressure. This modeling step is what makes it possible for engineers to ask and answer their hardest questions."

Today, Scuderia Ferrari engineers across diverse functions — including aerodynamics, power unit, vehicle dynamics, and race engineering — collaborate around this digital twin.

Palantir

Decision Making On-The-Fly

In a hyper-competitive environment, engineers need to transform insights into operational changes as quickly as possible. With its digital twin, Scuderia Ferrari can analyze data effectively, but also test and deploy decisions into operations using this analysis.

"Originally, we envisaged using the platform to replace existing tools, to do repetitive analysis. **But now we tend to use the platform on-the-fly to test new hypotheses,"** said May. "The most important commodity in Formula One is time...You achieve the most by arriving with technical solutions in the quickest possible time, be that bringing a new performance-enhancing solution to the race or solving a reliability problem. There's a huge competitive advantage to being able to make decisions quickly."

As engineers across functions make decisions, the platform captures the results of the decisions centrally. This creates a learning loop between the data, the decisions made by engineers, and the outcomes, so that subject matter experts can continuously improve the quality of their decisions over time.

The Future

Through robust data integration, **Scuderia Ferrari maintains the flexibility to adapt to the constantly evolving Formula One regulations with new methods of taking action on data.**

"Scuderia Ferrari has been an excellent partner to Palantir, and it's been a privilege to have the best automotive engineers in the world test drive new features and functionality," said Rahill-Marier.