

Formula 1 2020 Season Analysis



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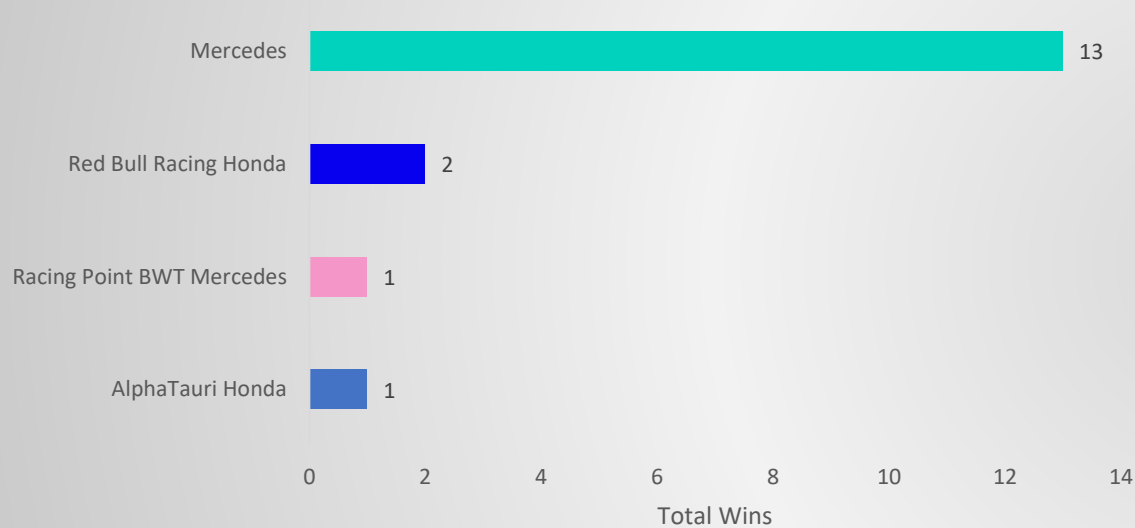
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Questions

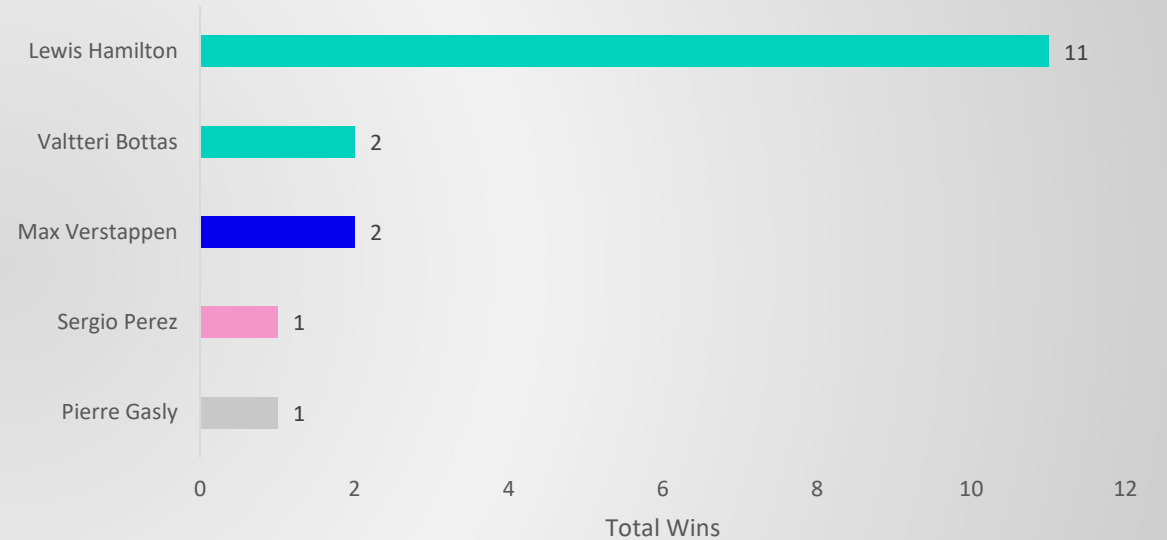
1. How many Grand Prix wins did each driver and team win?
2. How many drivers landed on the podium this season? How many times did they reach the podium?
3. How many times did a driver finish in the top 10 in each Grand Prix?
4. Who set the fastest lap in each Grand Prix? What is the count of fastest laps for each driver?
5. How many times did a driver receive DNFs this season? How many times did a team receive DNFs this season?
6. How did the drivers who placed in the top 10 progressed throughout the season?
7. How did each team progress throughout the season?
8. Which driver completed the most laps this season?
9. Which driver had the furthest driven kilometers this season?
10. How did COVID-19 impact the 2020 season?

Formula 1 – 2020 Season – Race Wins

Team Wins



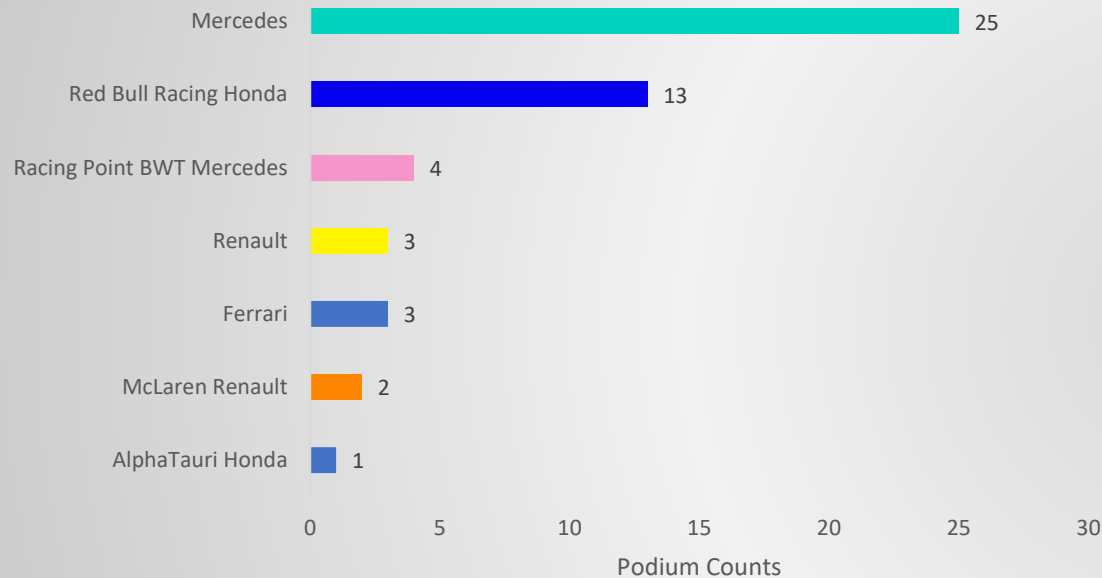
Driver Wins



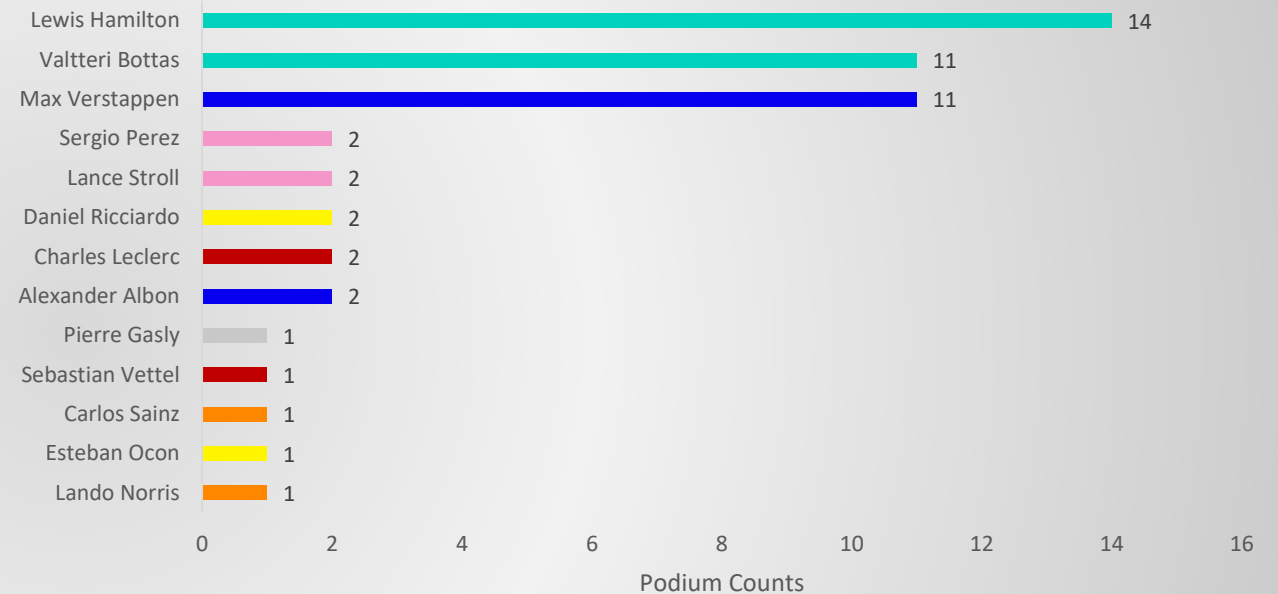
- During the 2020 Season, there were a total of 17 Grand Prix races.
- Based on my analysis, there is only 5 different drivers that won a grand prix this season.
- Lewis Hamilton dominated this season with 11 wins in total.
- Mercedes won by a huge margin against Red Bull Racing.
- Sergio Perez and Pierre Gasly took their first wins in their F1 careers.

Formula 1 - 2020 Season – Podium Wins

Podium Finish Counts (Teams)

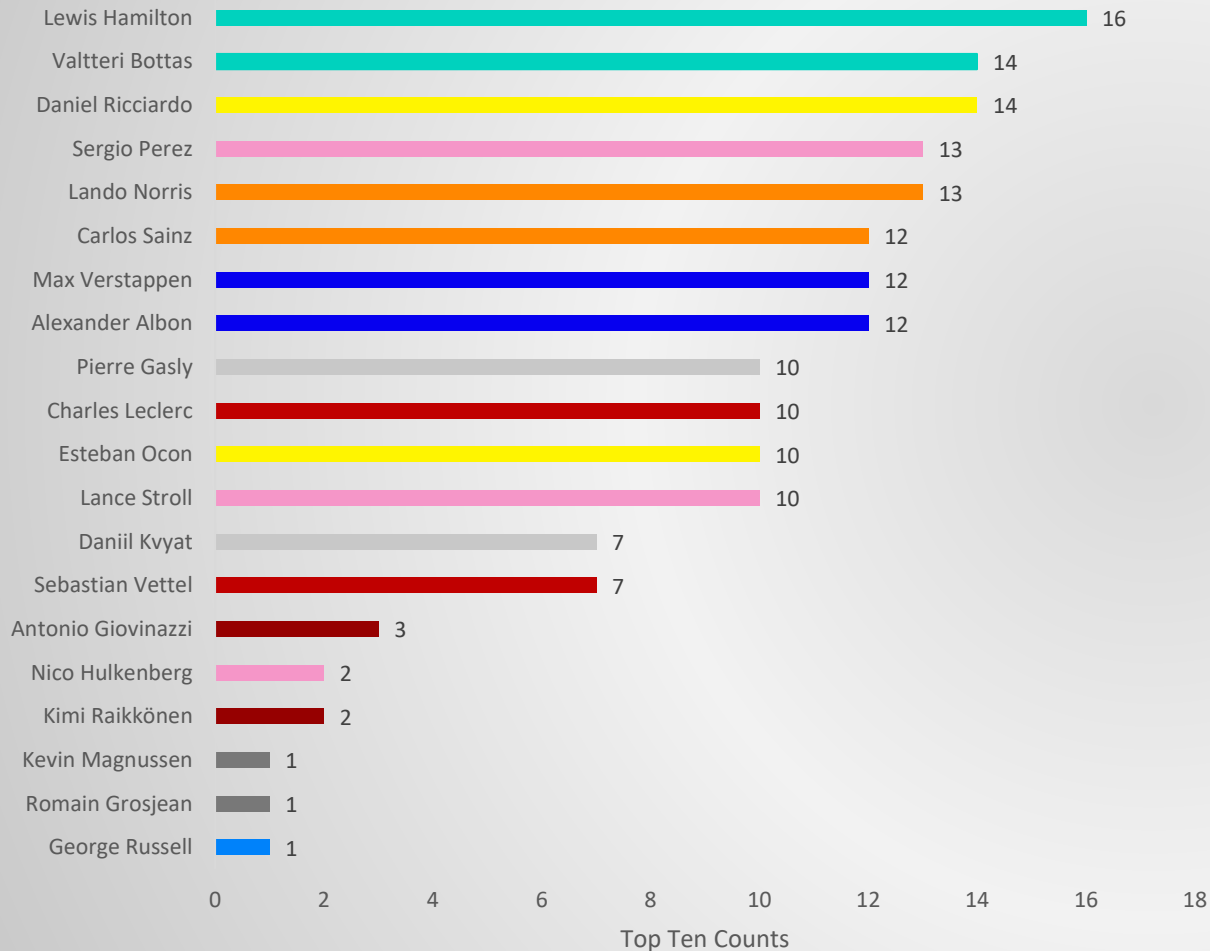


Podium Finish Counts (Drivers)



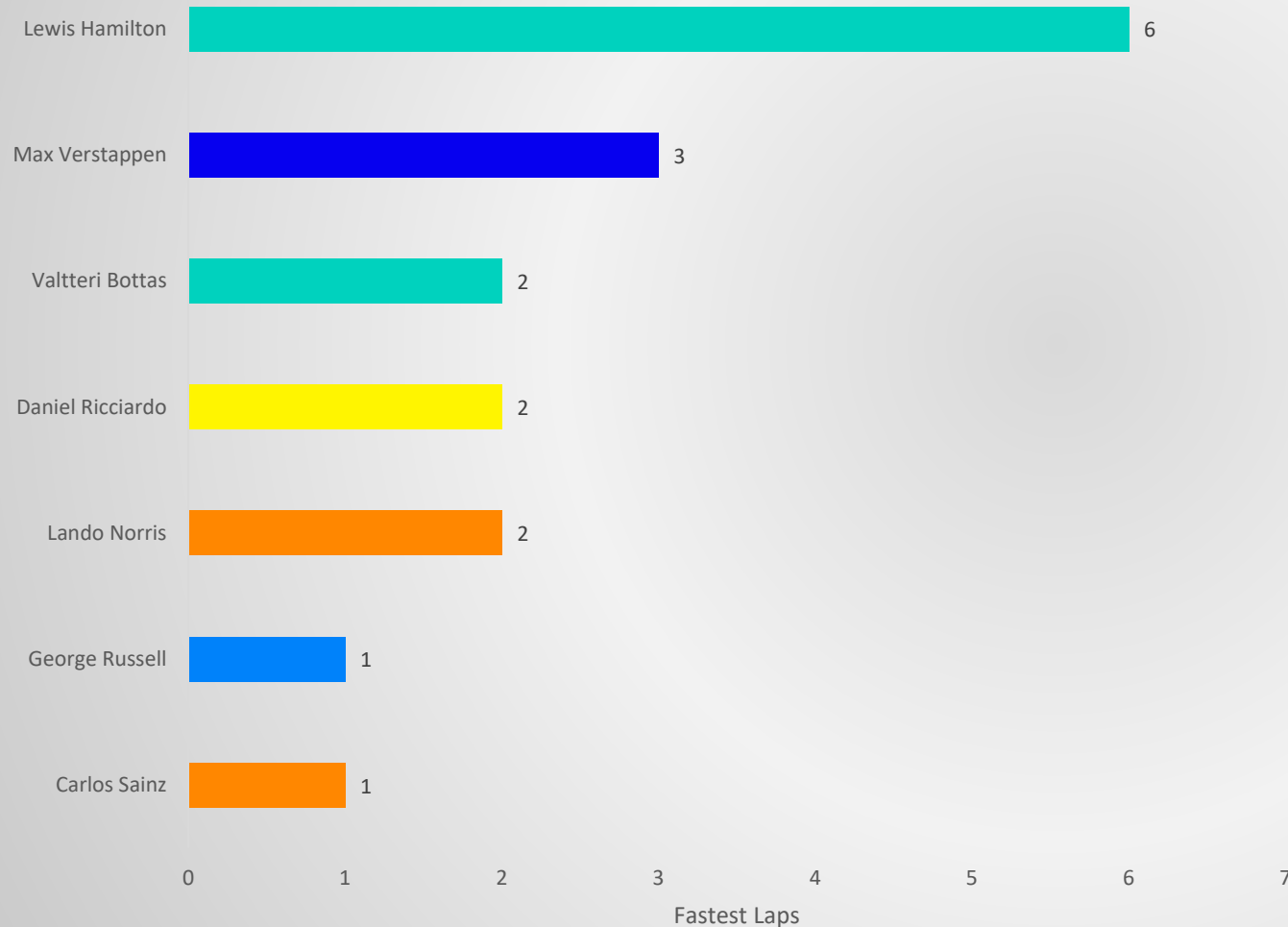
- Once again, the Mercedes team are on top by achieving to finish in the top 3 twenty-five times. Hamilton and Bottas with the most podiums wins in the season.
- Furthermore, there are drivers across 7 different teams that received a podium win this season.
- As for drivers, there are 13 different drivers who stepped on the podium at least once this season. This is a huge accomplishment for a F1 driver as they receive points towards the constructor's tally (team points).
- A podium is the top 3 finishers of the race and are presented with a trophy and champagne in a stage.

Formula 1 – 2020 Season – Top 10 Finish Counts



- In Formula 1, points are awarded to the top 10 finishers in a Grand Prix. The winner receives 25 points, second place receives 18 points, with 15, 12, 10, 8, 6, 4, 2 and 1 points for positions 3 through 10.
- Based on this chart, there is a total of 20 drivers that finished in the top ten from a grand prix race.
- In Result, these drivers achieved points towards their Driving Standings.
- Again, Lewis Hamilton took first by getting points in 16 different races. This means he got 0 points in 1 race as there were 17 total grand prix this season.
- After analyzing more data, I found that Lewis Hamilton was ruled out of the Sakhir Grand Prix after testing positive for COVID-19.
- George Russell, who races for Williams Mercedes, replaced Hamilton and finished in 9th place receiving 2 points to the Mercedes constructor standings and 2 points to his driver standings.
- As shown in the bar graph, George Russell finished one race while being in the top 10 throughout the season while driving for Mercedes.

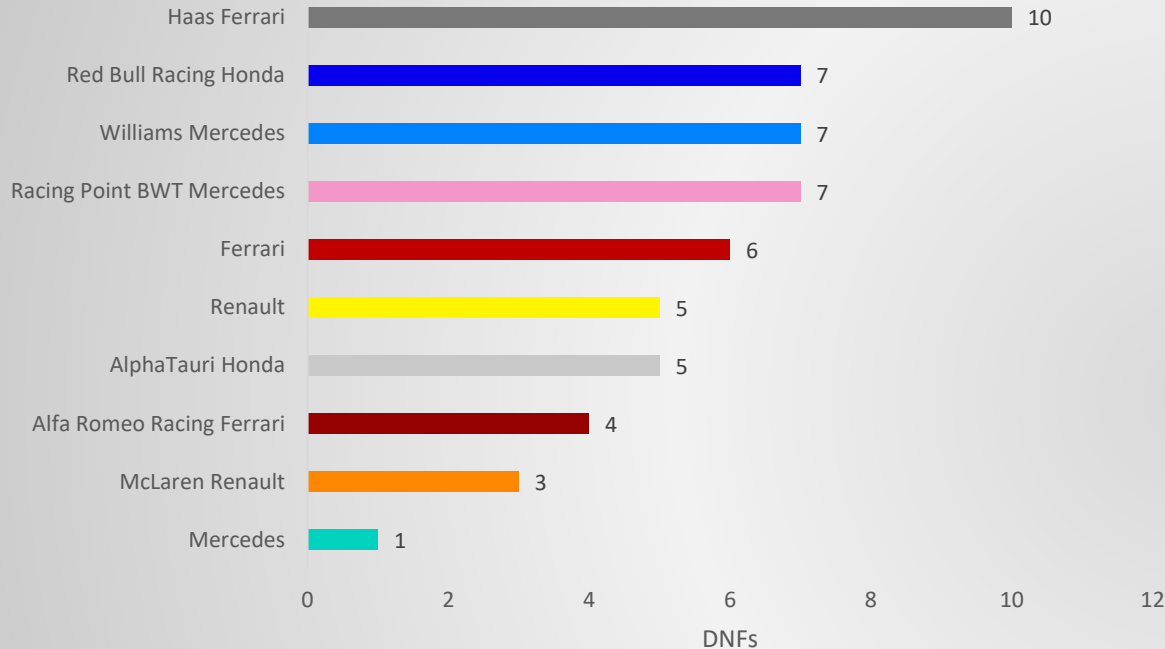
Formula 1 – 2020 Season – Fastest Lap Counts



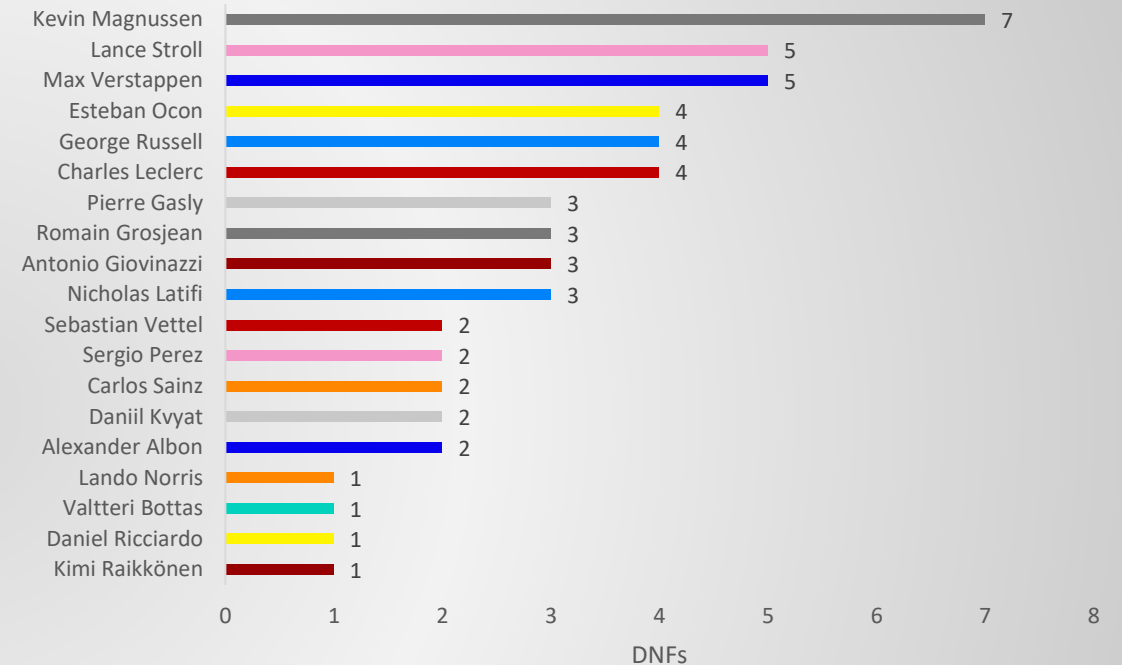
- As for fastest laps, one additional point is awarded towards the driver and the team when a driver sets the fastest lap time of the race, if they finish in the top 10 position.
- In a sport like F1, a single point can make a major difference between the driver and team standings.
- According to the chart, Mercedes drivers revealed to be the fastest compared to its opponents.
- Lewis Hamilton gained an additional 6 points to himself and the Mercedes team. As a team, Mercedes received 8 points in total since Bottas gained 2 points.
- In the previous slide, we saw that George Russell finished in the top 10 in Sakhir GP while driving for Mercedes. This means that he set the fastest lap in Sakhir GP which earns him a total of 3 points from that race.

Formula 1 – 2020 Season - DNFs

DNFs per Teams

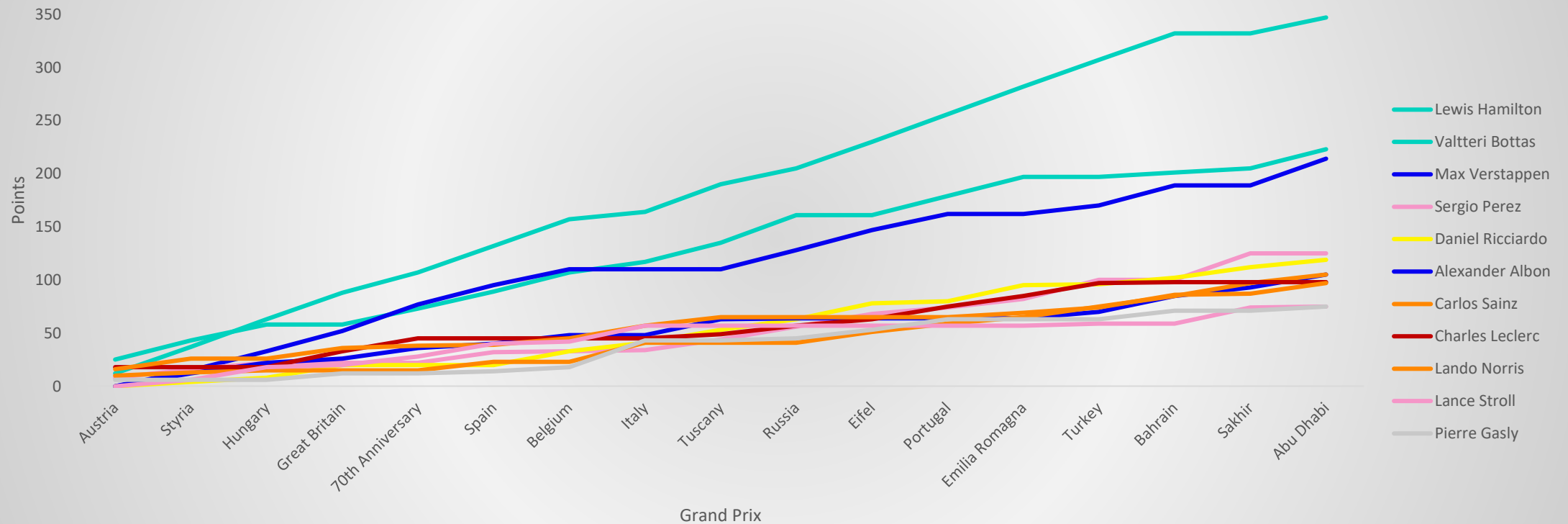


DNFs per Drivers



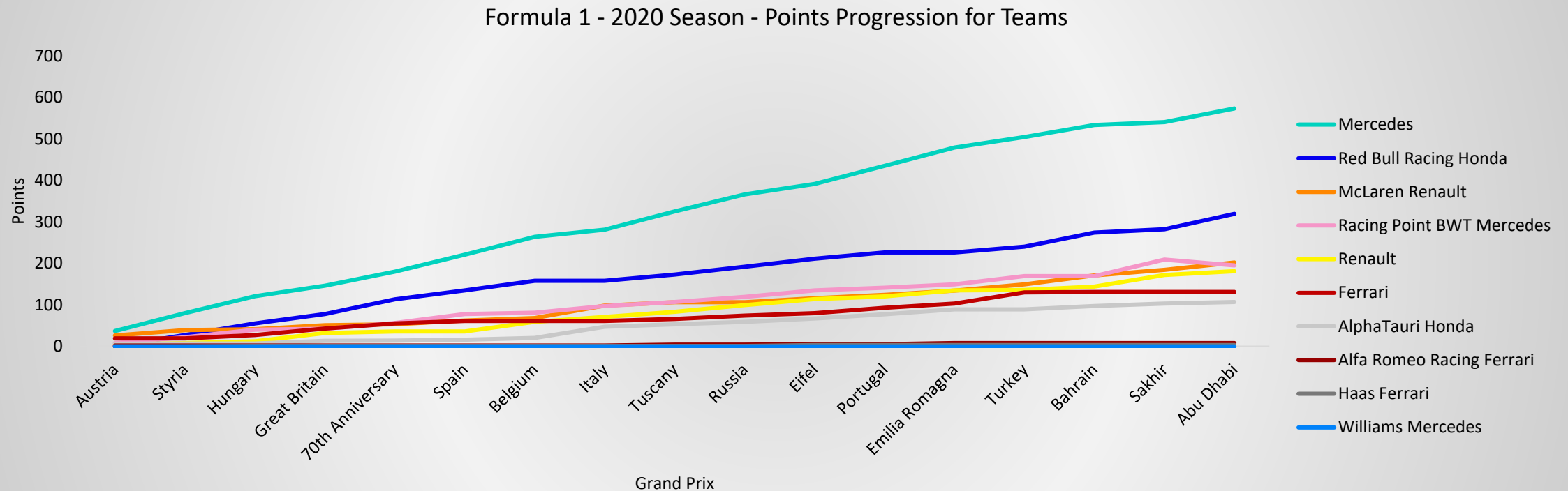
- In Formula 1, DNF stands for 'Did Not Finished.' A driver receives a DNF when they are unable to finish a race due to a mechanical failure, injury, or involvement in an accident.
- A DNF is the worst-case scenario for a driver and team as they receive 0 points.
- Unfortunately, Haas Ferrari had the most DNFs during the 2020 season.
- Despite Red Bull Racing placing in 2nd in the Constructors Standings, they had a total of 7 retirements this season.
- In extend, each team experienced at least one or more DNFs.
- Lewis Hamilton is missing from the chart as he is the only driver that never became DNF.

Formula 1 – 2020 Season – Points Progression for Drivers in Top 10 Standings



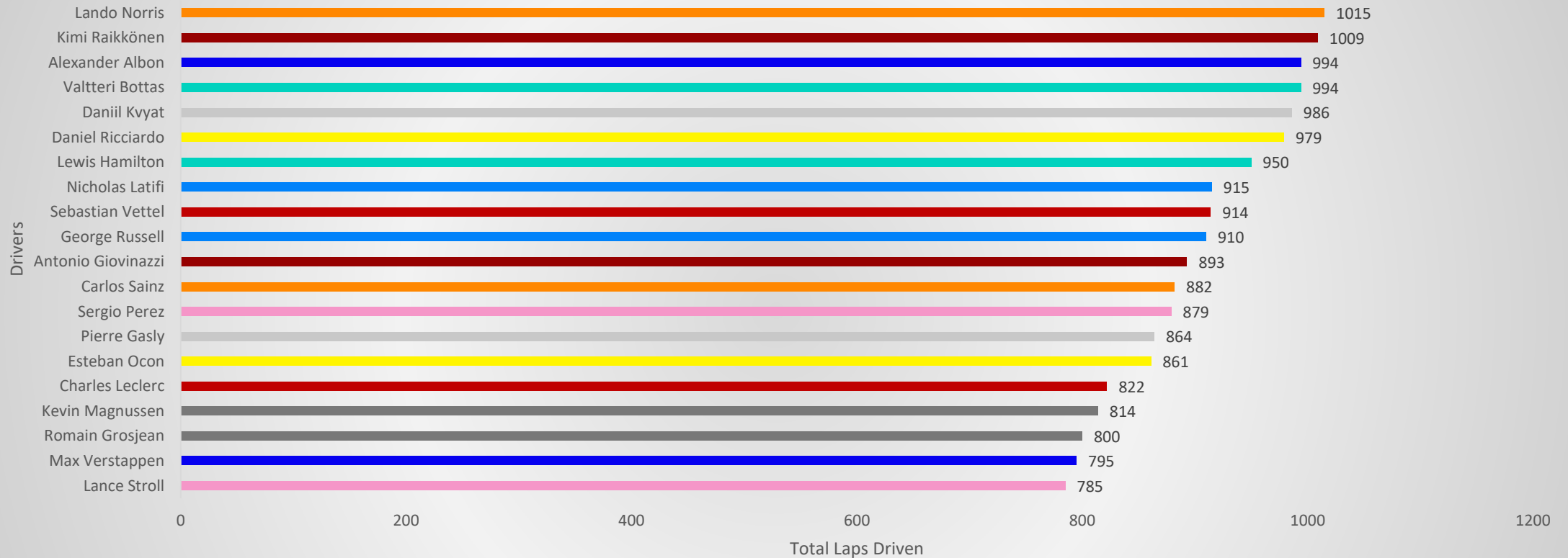
- As we can clearly see, Lewis Hamilton dominated the Driver Standings with 347 points. Undoubtably, Hamilton would have earned more points if it weren't for testing positive for COVID-19 and unable to participate in the Sakhir GP. Nevertheless, Hamilton became the world champion for the seventh time.
- The points gap for Bottas(223) and Verstappen(214) were very slim as they fought for second place in the Driver Standings.

Formula 1 – 2020 Season – Points Progression for Teams



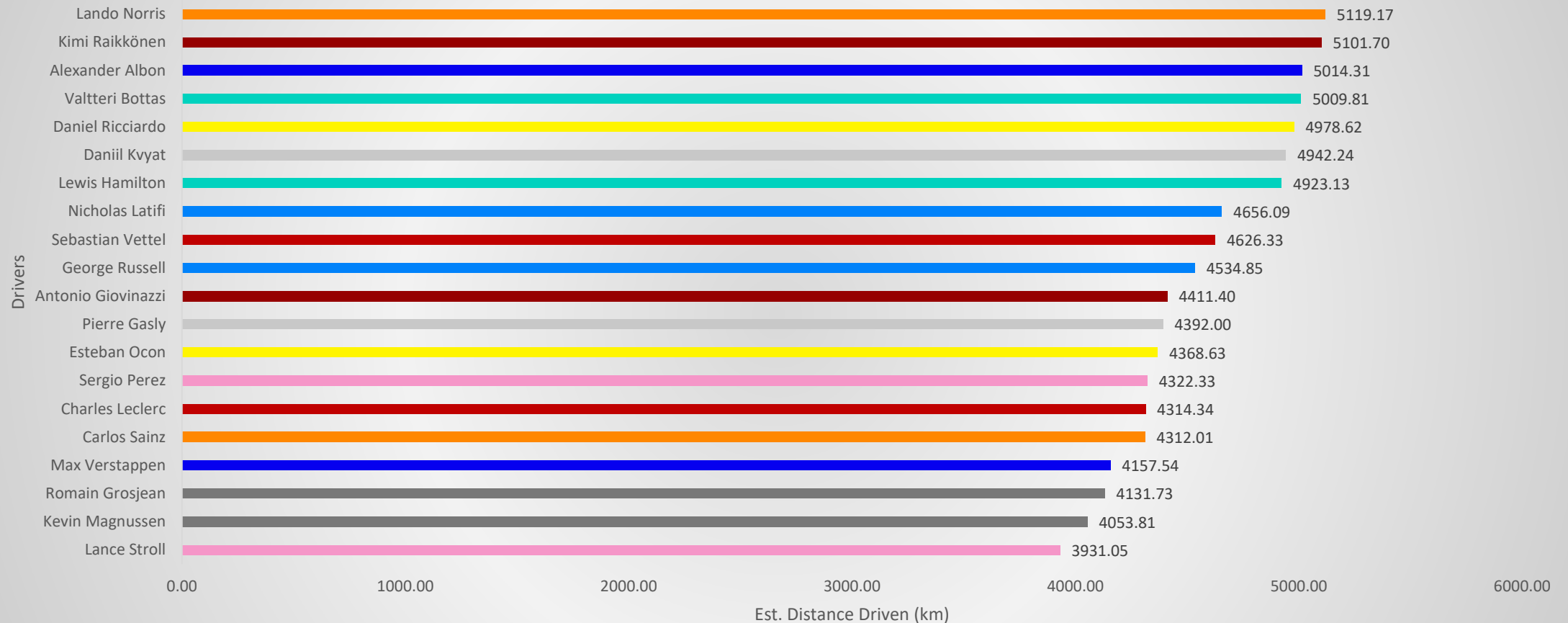
- Overall, Mercedes has extensively shown their consistency throughout the season. It reveals that Mercedes has an advantage over all teams as they are more likely to have higher durability in their cars.
- As shown above, Red Bull Racing took 2nd place in the Constructor Standings since Verstappen made a major contribution into the team points.
- McLaren Renault claimed 3rd place against Racing Point since they were deducted 15 world championship points for breaking Formula One's regulations with alleged copies of the brake ducts used during the 2019 championship-winning Mercedes cars.
- Unfortunately for Racing Point, they would have claimed 3rd place if it weren't for the 15 points deducted.

Formula 1 – 2020 Season – Total Laps Driven by Drivers (Race Session Only)



- Note: This data only includes the race session laps it excludes the practice and qualifying laps. As well, it excludes the following reserved drivers: Nico Hulkenberg, Pietro Fittipaldi, and Jack Aitken. Reserved drivers are called upon as a backup in case if they need to participate in a race in a short notice.
- From the graph above, Norris accomplished to have the most laps driven during the 2020 season. As well it is interesting to point out that Lando Norris is the youngest driver on the track at just 21 years old.
- It's interesting to see that Lewis Hamilton has fewer driven laps compared to six drivers. This is because, Hamilton did not participate in the Sakhir GP which consisted of 87 laps. He would have had the most laps driven if only he raced in the Sakhir GP.
- Furthermore, we can see that Max Verstappen is second to last with most laps driven despite coming in 3rd place in Drivers Standings.

Formula 1 – 2020 Season – Estimated Distance Driven by Drivers (Race Session Only)



- *Reserve drivers aren't included in this chart.
- For this visualization, I calculated the total kilometers driven for each driver this season.
- Once again, Norris had the most kilometers driven throughout the season. This indicates the durability of McLaren vehicles. According to the DNFs per Drivers chart, it shows that Lando only had one DNF in the entire season at the Eifel Grand Prix due to mechanical issues. This proves that McLaren has potential in defeating Mercedes since their car performance is great. We can see that Lando is pushing his car to the absolute limit of performance in comparison to his teammate Carlos Sainz.

Conclusion

In Conclusion, we gained a lot of insights in the driver and team performance this season. Without a doubt, Mercedes will continue to be the top team since Hamilton has all the qualities to lead the team to another victory. This is because, the Mercedes team started at pole position(1st position) 15 times out of the 17 Grand Prix Races. This suggests that Mercedes maintains pole position because of its powered cars compared to its rivalry's cars.

Furthermore, Max Verstappen has shown a promising performance for the next season as he achieved 3rd place in the Driver Standings. He may be able to challenge harder against the Mercedes team with an improved car performance for next season.

This concludes my Formula 1 2020 Season analysis.