

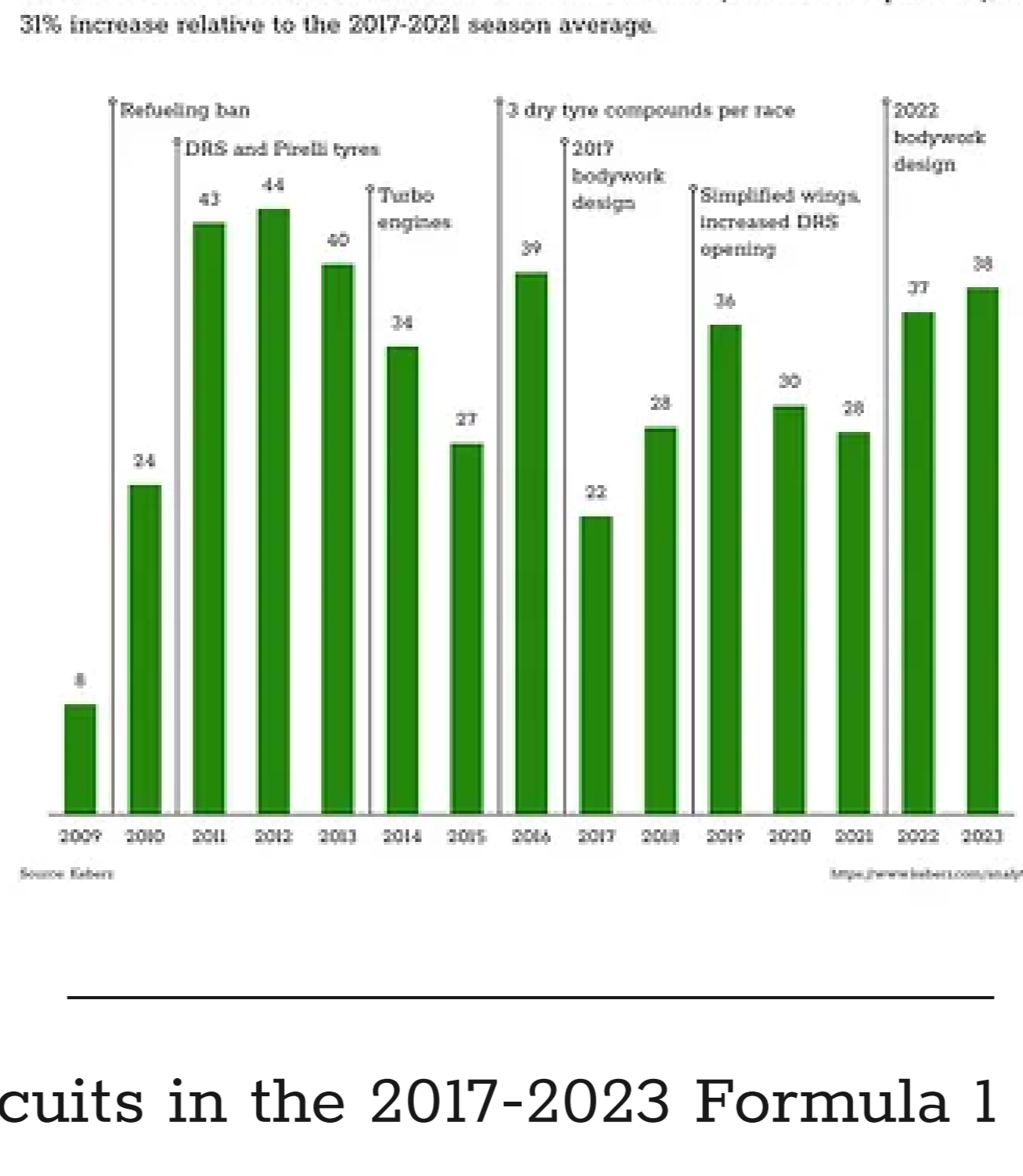
Dec 2, 2023 · 3 min read

## Overtakes in Formula 1 - the 2023 season update

The 2023 season in Formula 1 had no significant changes in technical or sporting regulations, but there are still plenty of interesting insights about circuits, teams and drivers. Let's look at the ten key insights from the fifth annual report about overtaking in Formula 1 by Keberz.

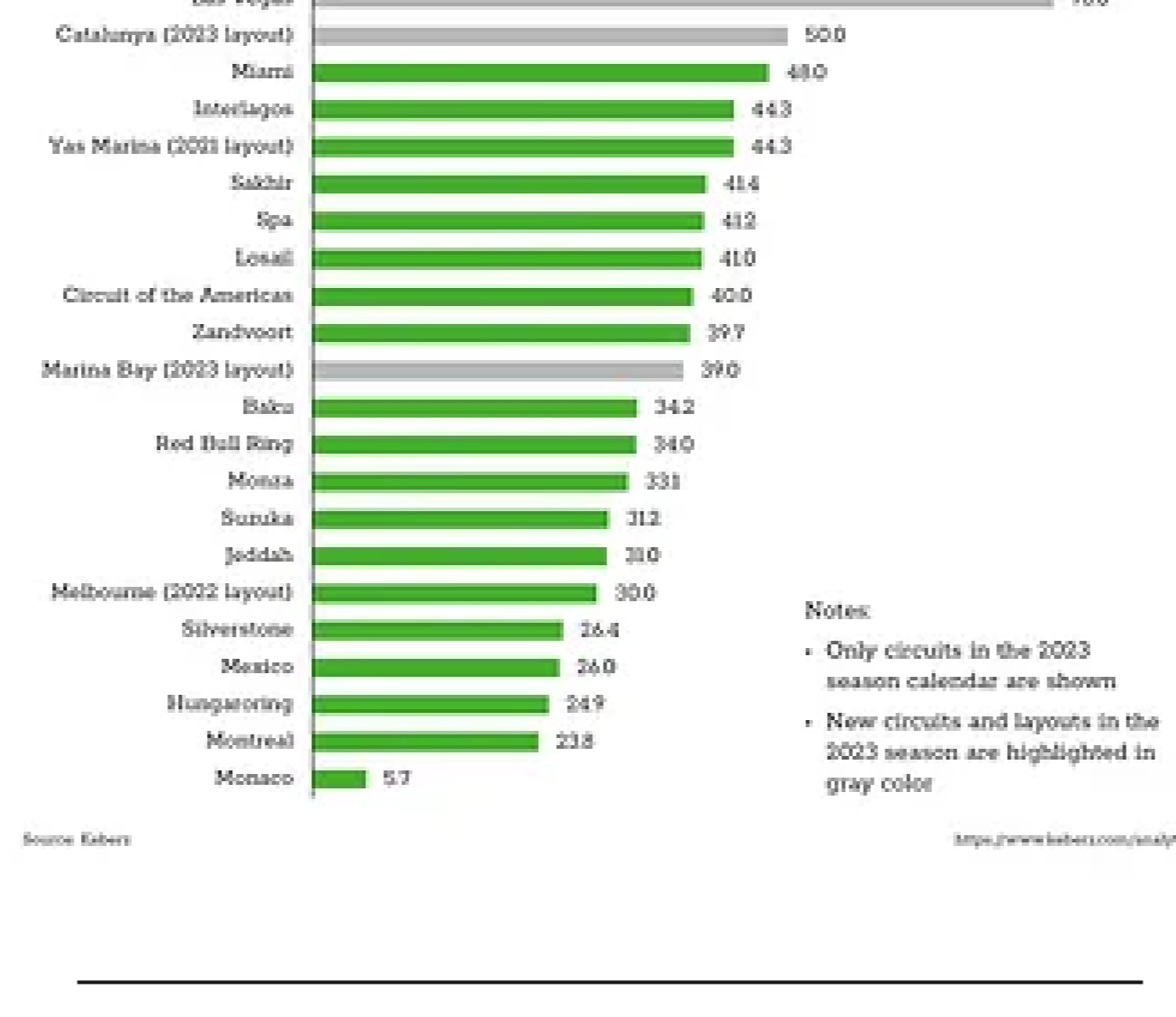
### #1 Overtakes per race in Formula 1

The data in 2023 confirms that an overhaul of the technical regulations before the 2022 season reduced dirty air and made overtaking simpler. The average number of overtakes remained almost at the level of the 2022 season (29 overtakes per race) a 3% increase relative to the 2017-2021 season average.



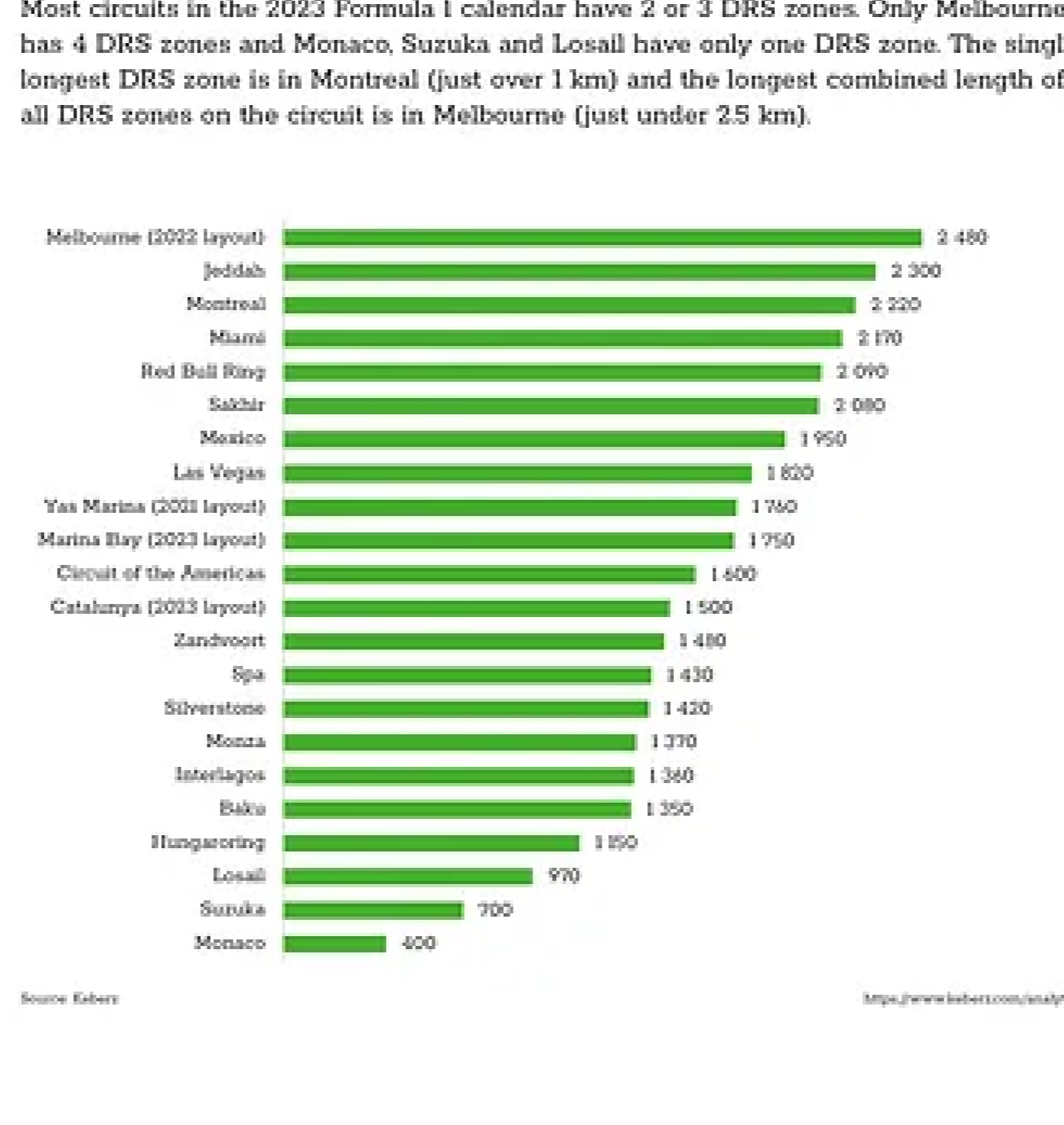
### #2 Overtakes by circuits in the 2017-2023 Formula 1 seasons

Several circuit layouts have been changed to promote overtaking in recent years. Specifically, Yas Marina, Melbourne, Catalunya and Marina Bay have become faster with more overtaking opportunities. As a result, some classic circuits have dropped to the lower half of the overtaking leaderboard.



### #3 DRS zones in Formula 1

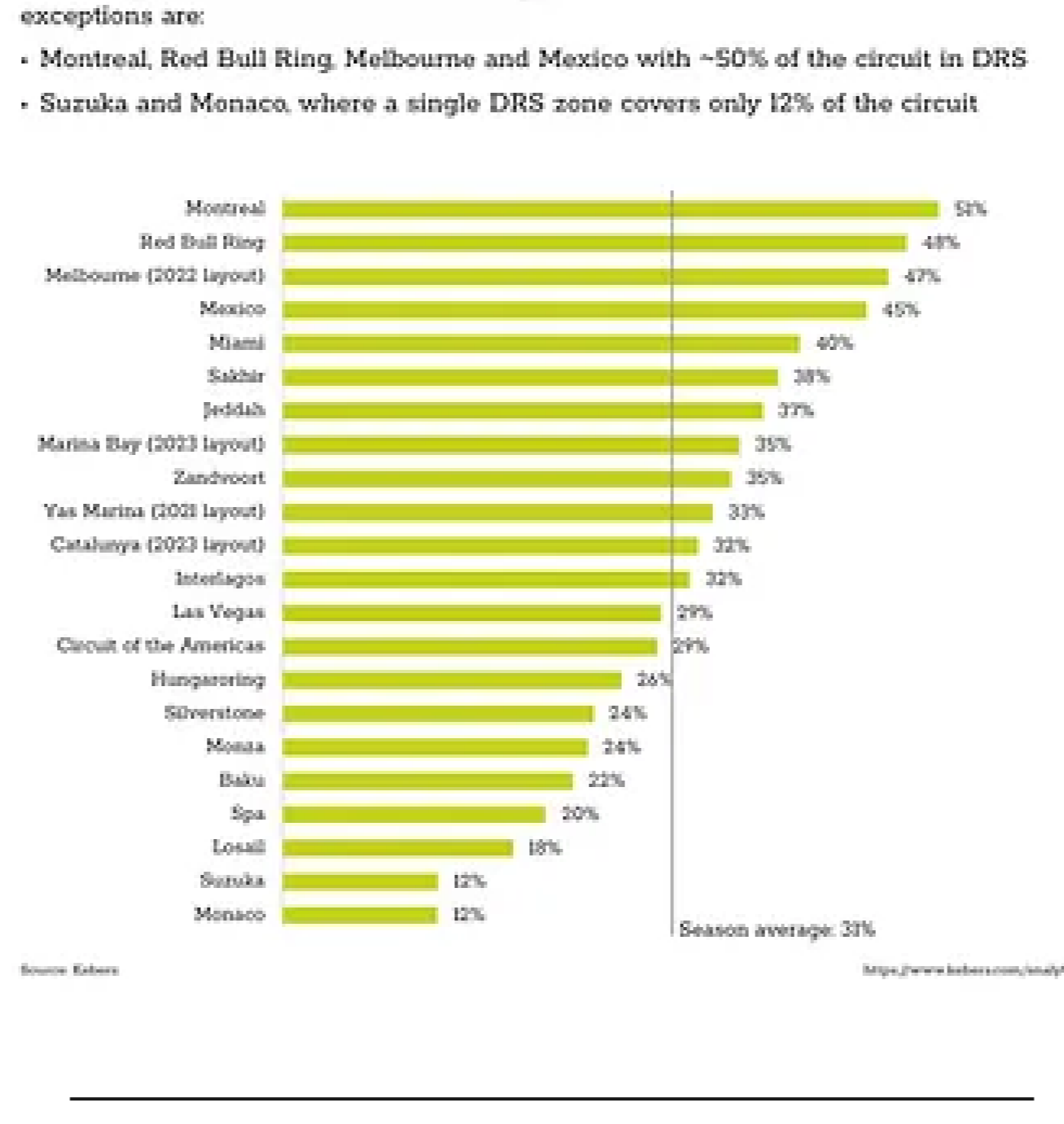
Most circuits in the 2023 Formula 1 calendar have 2 or 3 DRS zones. Only Melbourne has 4 DRS zones and Monaco, Suzuka and Losail have only one DRS zone. The single longest DRS zone is in Montreal (just over 1 km) and the longest combined length of all DRS zones on the circuit is in Melbourne (just under 2.5 km).



### #4 DRS zones as % of circuit length in Formula 1

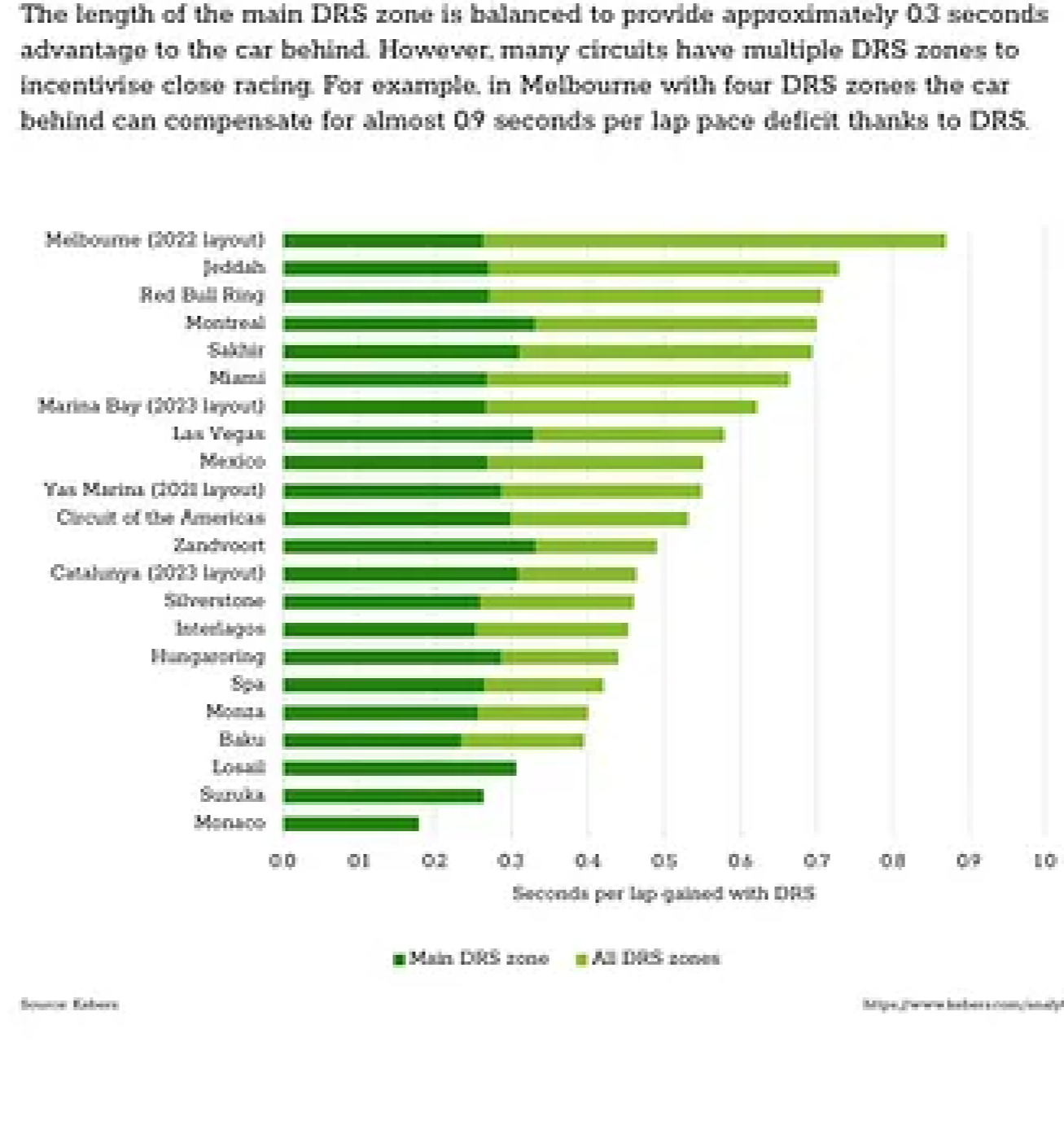
On average, about a third of a circuit length is included in the DRS zone. The notable exceptions are:

- Montreal, Red Bull Ring, Melbourne and Mexico with ~50% of the circuit in DRS
- Suzuka and Monaco, where a single DRS zone covers only 12% of the circuit



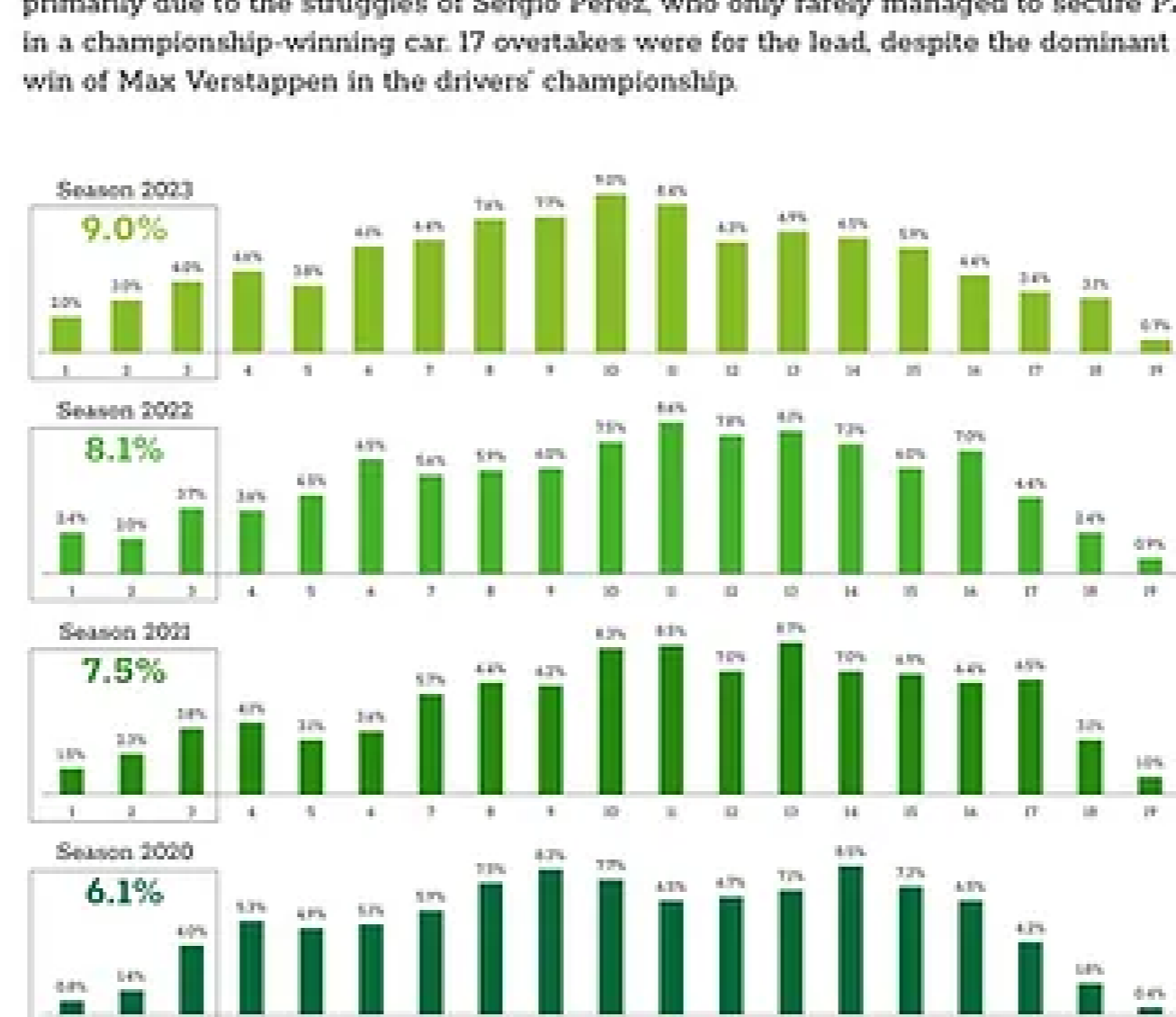
### #5 The power of DRS in Formula 1

The length of the main DRS zone is balanced to provide approximately 0.3 seconds advantage to the car behind. However, many circuits have multiple DRS zones to incentivise close racing. For example, in Melbourne with four DRS zones the car behind can compensate for almost 0.9 seconds per lap pace deficit thanks to DRS.



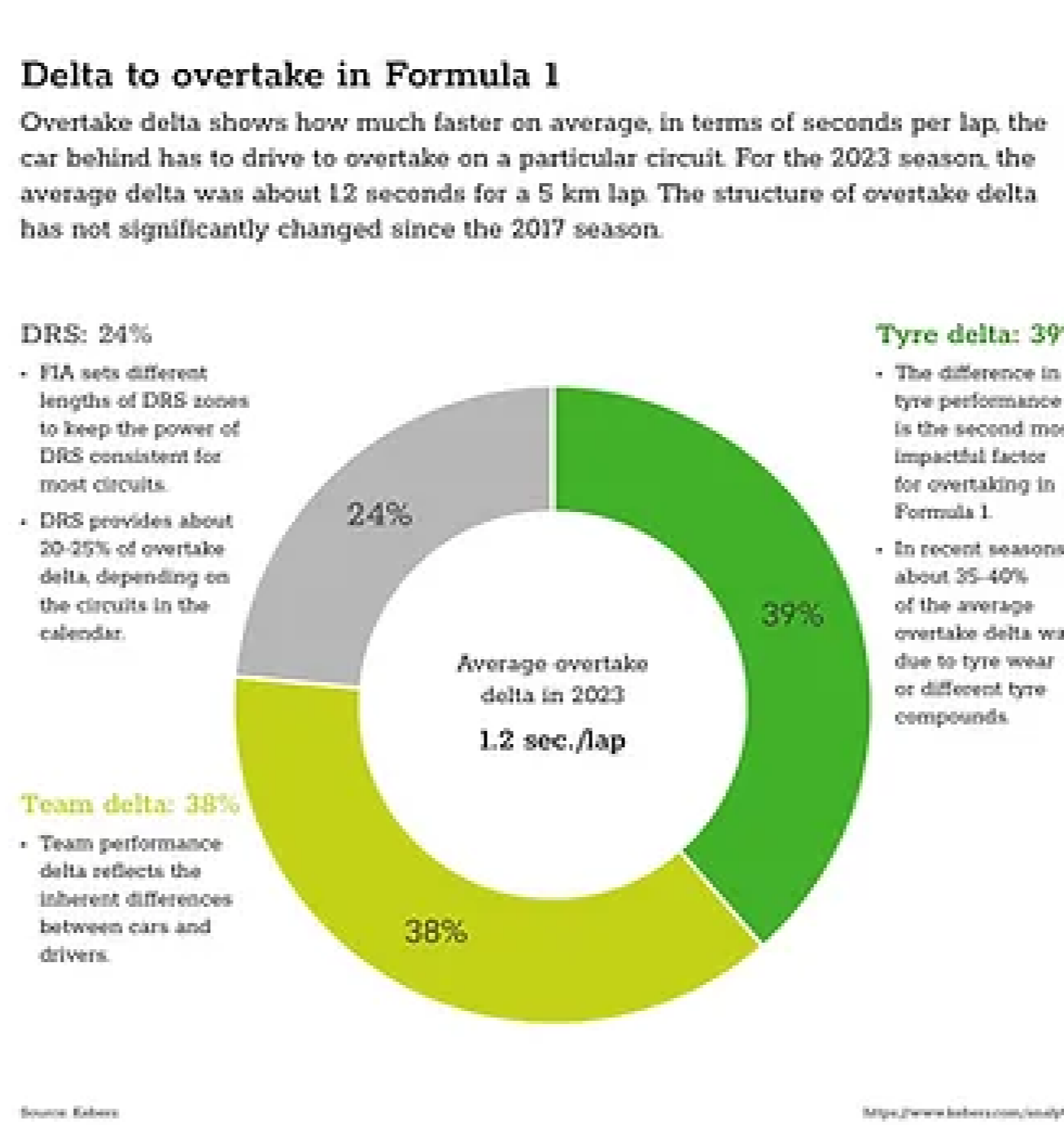
### #6 Overtakes by position in Formula 1

In the 2023 season, the share of overtakes for the podium continued to increase, primarily due to the struggles of Sergio Perez, who only rarely managed to secure P2 in a championship-winning car. 17 overtakes were for the lead, despite the dominant win of Max Verstappen in the drivers' championship.



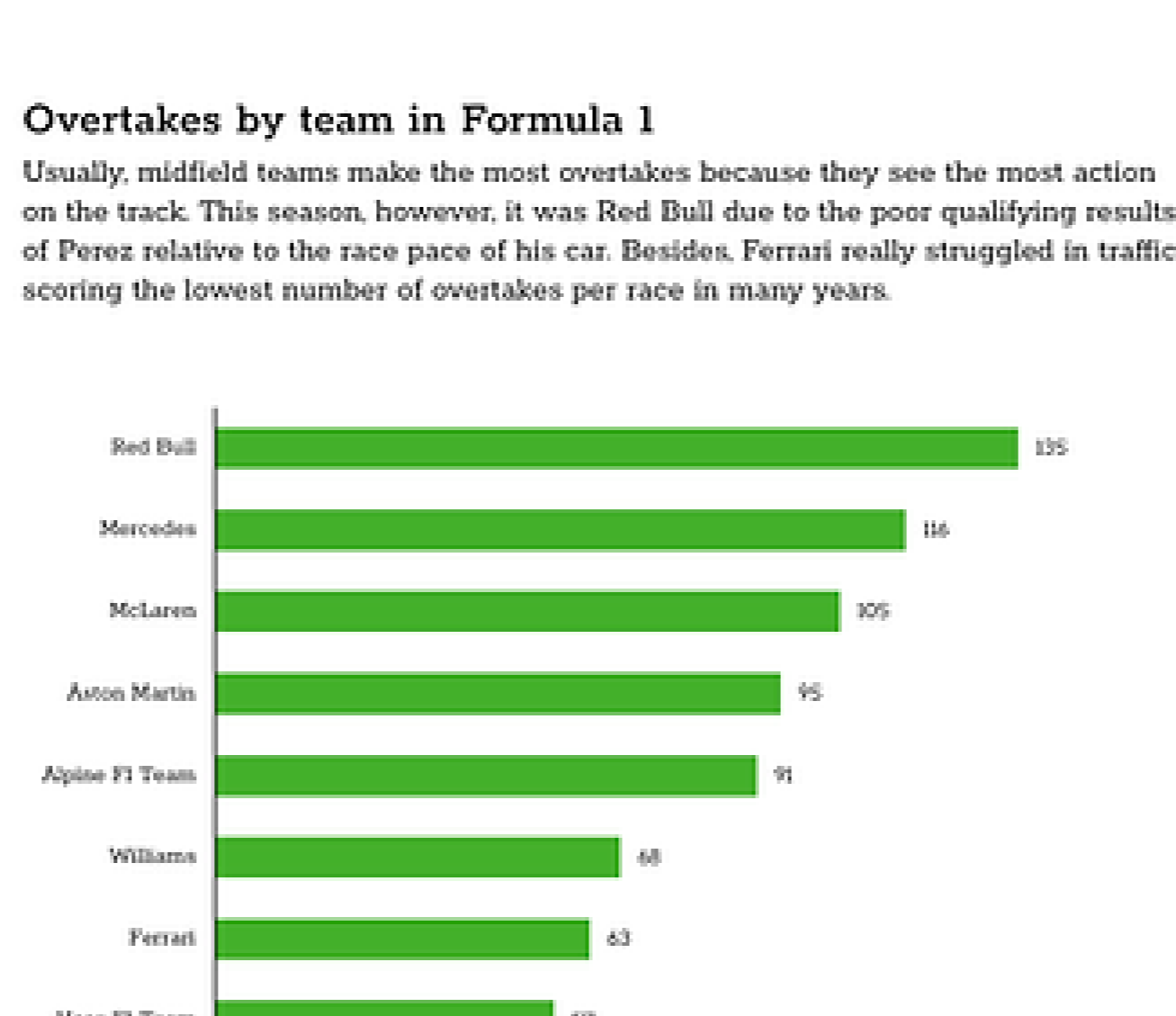
### #7 Delta to overtake in Formula 1

Overtake delta shows how much faster on average, in terms of seconds per lap, the car behind has to drive to overtake on a particular circuit. For the 2023 season, the average delta was about 1.2 seconds for a 5 km lap. The structure of overtake delta has not significantly changed since the 2017 season.



### #8 Overtakes by team in Formula 1

Usually, midfield teams make the most overtakes because they see the most action on the track. This season, however, it was Red Bull due to the poor qualifying results of Perez relative to the race pace of his car. Besides, Ferrari struggled in traffic, scoring the lowest number of overtakes per race in many years.



### #9 Overtakes by driver in Formula 1

Sergio Perez was the driver with the most overtakes in the 2023 season. He managed 80 on-track overtakes, excluding ones made during the first lap, after a standing restart, due to driver errors, crashes, penalties or mechanical issues and against lapped cars.



### #10 Top 3 Formula 1 drivers in overtaking - season 2023

Our top 3 drivers of the 2023 season in overtaking are Max Verstappen, George Russell and Fernando Alonso. The ranking is based on comprehensive statistics calculated by Keberz Analytics Software (KAS) during every season:

- the number of overtakes
- average laps in traffic per overtake
- position of overtake (strength of opposition)
- performance against teammates
- other data.



For more data-driven insights in motorsport, check out our [Twitter](#) and [Instagram](#). You can also [contact us](#) with a specific request, and we will be happy to discuss what we can do for you.

[f](#)
[x](#)
[in](#)
[e](#)
[@](#)
Analytics

---

**Comments**