F1 CONFUSION REIGNS OVER RACING RULES

BRITAIN'S BEST MOTORSPORT WEEKLY 25 NOVEMBER 2021

F1 2021 FIGHT

HAMILTON TURNS THE SCREW

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Verstappen's lead down to 8 points as reigning champion dominates inaugural Qatar GP

- Mercedes' shock engine revelation
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PLUS

Ogier takes eighth WRC crown

What next for Chadwick and W Series?





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Another brilliant title fight that went down to the wire in 2021

A seven-time world champion being challenged by a younger driver who has shown his title credentials before but ultimately misses out. No, we're not predicting the outcome of the enthralling Lewis Hamilton versus Max Verstappen Formula 1 contest, but talking about the World Rally Championship fight between Sebastien Ogier and Elfyn Evans that was decided in thrilling fashion last weekend.

The Monza battle between the Toyota pair was surprisingly intense given Ogier didn't have to win the event to secure the title. But perhaps he *needed* to in his final rally as a full-time WRC driver. Tom Howard was there (see page 32) to see how Ogier signed off with his eighth world title (scored for three different teams) to underline his place alongside Sebastien Loeb, Colin McRae and Walter Rohrl (to name but three) in the 'greatest rally driver' debate.

Though defeated, Evans has finished second in the standings for two consecutive years, making him one of the 2022 favourites, depending on how the leading manufacturers deal with the Rally1 hybrid rules. He hasn't been as consistent a performer as Verstappen, but next year he won't have to worry about the established benchmark, and some of his 2021 performances mean his rivals know he'll be in the fight.

It's 20 years today (25 November) since the late Richard Burns took the WRC crown with Subaru. We mark the occasion by picking out his greatest drives on p38.





NEXT WEEK 2 DECEMBER



COVER IMAGES

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IT & PADDOCK

- Brazil fallout confuses racing rules
- Giovinazzi switches to Formula E 6
- 8 Blomqvist and Jarvis to team up in IMSA
- 11 **Opinion: Alex Kalinauckas**
- 12 **Opinion: Kevin Turner**
- Feedback: your letters 13

RACE CENTRE

- Qatar GP report and analysis 14
- WRC 10 competition 30
- 31 World of Sport: Australian Supercars; Macau GP
- **32** WRC: Ogier pips Evans in thrilling finale

INSIGHT

- 38 Richard Burns's top 10 drives
- World Endurance Championship review 44
- Chadwick's second W Series title 52

CLUB AUTOSPORT

- 65 Smalley secures Porsche Junior prize
- HSCC to launch 1950s sportscar series 66
- 68 Porsche racer escapes Brands Hatch roll
- **Opinion: Paul Lawrence** 71
- National reports: Brands; Ulster Rally 72
- 74 We track-test the rapid Praga

FINISHING STRAIGHT

- 78 What's on this week
- From the archive: 1970 Spanish GP 80
- 82 What could have been: Green in F1

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Kevin Turner Chief Editor kevin.turner@autosport.com

Ferrari's latest F1 revival The iconic team has made progress, but what's still left to do?

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FORMULA E SUPPLEMENT

How Mercedes became a Formula E powerhouse, the tech behind the all-electric series, plus a column from champion Nyck de Vries.

25 NOVEMBER 2021 AUTOSPORT.COM 3



FORMULA 1

Formula 1 drivers have stated their confusion over a lack of clarity on racing rules after the FIA opted against reviewing the recent incident between Lewis Hamilton and Max Verstappen as they battled for the lead of the Sao Paulo Grand Prix.

In the aftermath of the Interlagos race, Mercedes announced in the lead-up to last weekend's Qatar GP that it had submitted a request for right of review with the FIA after onboard footage from Verstappen's car became available. The front-facing onboard camera was not available to the stewards immediately after the incident, in which Verstappen forced Hamilton wide at Turn 4. Mercedes F1 chief Toto Wolff called the decision not to investigate at the time "laughable".

Officials from Mercedes and Red Bull met with the Brazil race stewards last Thursday before it was announced on Friday morning that the right of review had been denied. While the stewards accepted that the evidence of Verstappen's onboard camera was new was clarity over the racing rules when going wheel to wheel. Verstappen felt it was "pretty clear" in the meeting, arguing that "everyone has their own way of racing and defending and overtaking". "It's not clear," countered Hamilton. "Every driver, I think, except for Max, was asking just for clarity. But it wasn't very clear. So, yeah, it's still not clear what the limits of the track are. It's clearly not the white line anymore."

Grand Prix Drivers' Association director George Russell felt there was "no outcome" from the drivers' briefing, saying Verstappen had gone "well beyond the line" with his move: "At the end of the day, we all want to race hard, but [Verstappen] was hard and unfair."

Carlos Sainz Jr felt there needed to be "deep conversations about how we go racing", adding: "The way it's been working this year, it's pretty clear that the drivers we don't fully understand what is going to happen depending on what you do."

FIA race director Michael Masi denied that there was any confusion, believing it was "clear" what was expected from the drivers despite acknowledging that every case was different. "Some of them might agree, some of them disagree, and that's always with each and every one of them," he said. "They have agreed and disagreed all the way through. So we've given them some overall guidance, but also been very clear on the fact that each and every case will be judged on its merits."

DEBAT

NEWS

and relevant, they did not deem it to be significant, and they were satisfied with the original decision based on the available cameras at the time.

Wolff said the pursuit of a review was "more about the principle and the philosophy" than trying to get Hamilton's title rival penalised. "It is really important to understand what's on and what's not on for the next few races," he said. "We don't want this championship to be decided by a highly controversial situation that may end up in the stewards' room again, and with lots of polarisation afterwards."

The matter was discussed at length in the drivers' briefing on Friday in Qatar, where there was a noted split in the room over who did and did not feel there

RED BULL RAISES MERCEDES WING QUESTION

Wolff and his Red Bull counterpart Christian Horner took part in a tense FIA press conference on Friday in Qatar, during which the legality of Mercedes' rear wing was again questioned by Red Bull.

Horner claimed that pictures showing score marks at the end of the main plane of the Mercedes rear wing



proved there was some flexing, and threatened a protest against the design after Hamilton's dominant win in Brazil. Wolff responded by saying that Horner had seen "a ghost", and that the design was within the regulations.

The FIA introduced additional load tests for rear wings after qualifying in Qatar as part of a fact-finding mission that "do not form part of the regulatory requirements". Horner welcomed the tests and said they were doing their job, claiming that Mercedes' straightline speed was "under control" and "suddenly in line" with Red Bull's.

"The track here is less power-sensitive, interestingly, and I think they've just done a good job," Wolff said in Qatar. "Their straightline speed with the big wing is identical to ours. So I'm happy that they are happy."

But Wolff was uncertain if it would avert any possible action from Red Bull, saying: "I can't follow the thinking. It seems erratic."

HORNER CENSURED FOR MARSHAL CRITICISM

Horner himself was summoned by the stewards on Sunday over a sporting code breach for accusing a



Saudi Arabian GP circuit takes shape in Jeddah

FORMULA 1

Saudi Arabian Grand Prix chiefs have revealed the latest images of progress at their new Jeddah track as final preparations are made for its inaugural race next week.

The all-new street circuit is being built on the Jeddah Corniche, and construction work looks set to roll on all the way up until the F1 circus arrives. While some of the infrastructure around the Jeddah circuit is unlikely to be completed in time for this year's race, the latest images suggest that the track itself is done, which should at least ensure that the event can go ahead.

Officials organising the race say they have used 3000 on-site contractors to get the building of the venue completed in time for the GP, which will become the second full night race on the F1 calendar after the Singapore GP.

While there have been doubts over recent weeks that the circuit would be finished in time, F1's bosses have been adamant that it will go ahead as planned. F1 race director Michael Masi visited the track before going to last weekend's Qatar GP to get a latest said: "It's an ambitious project, it will be a great facility. They're up against it. But they're literally working twenty-four-seven as they have been for quite a long time now. I saw some more photos this morning, and they've made huge progress. But still a lot to do. So it really is going to be down to the wire. But they'll get it done. Everything we need to put the race on safely we'll have, I'm confident of that."

F1 CEO Stefano Domenicali added: "The track will be done, the priority we know is there. But you will see the level of show that they're going to bring there too. They are all excited, a lot of work has been done. So it's really good."

Speaking to Autosport as part of its #ThinkingForward series of podcasts, Saudi Minister of Sports Prince Abdulaziz said there was already a buzz around F1's debut in Jeddah.

"We're already starting to get really positive feedback from everyone on what's going to happen and the race, the set-up of the track that's being built," he said. "So really, we're all excited and bringing everything together to make sure that it's a memorable and exciting event that's like no other on the calendar. "That's what we aim to show, to hopefully achieve that everyone that comes and attends this race experiences something that is different than anywhere else." LUKE SMITH

"rogue marshal" of putting out double-waved yellow flags in qualifying. Verstappen failed to slow for them and received a five-place grid penalty.

Masi made it clear that he wanted to set a precedent and that he would "defend every volunteer official" at F1 races, and that Horner's criticism was "not accepted". "Without them this sport that everyone has very close to their heart won't happen, and all of them give up a huge amount of their time," he said.

Horner apologised and was given a warning, and agreed to take part in a stewards' training programme.



progress update on construction. Speaking to Autosport recently, F1 sporting director Steve Nielsen



Listen to James Allen talk with Prince Abdulaziz as part of our **#ThinkingForward** podcast series

25 NOVEMBER 2021 AUTOSPORT.COM 5

Giovinazzi gets FE Dragon Penske drive

FORMULA E

Antonio Giovinazzi has become the latest driver to fall out of Formula 1 only to be snapped up by Jay Penske to race for the American's Formula E team.

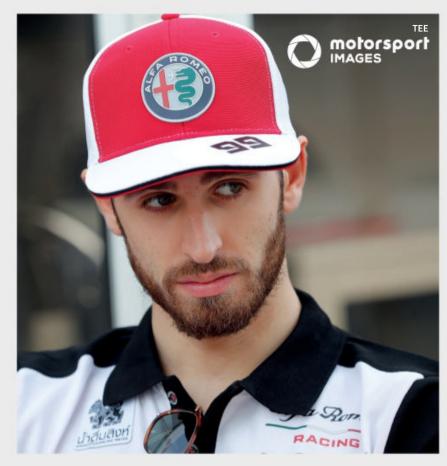
The recently axed Alfa Romeo pilot will make his electric racing bow in 2022 for Dragon Penske Autosport, following the path of Felipe Nasr and Brendon Hartley, who lasted three and five races respectively with the volatile backmarker squad.

Giovinazzi took to social media to bemoan the "ruthless" nature of F1 after he was ousted in favour of Guanyu Zhou following a three-year stint in the top flight. But the Italian reckoned: "As soon as it was made public that I would not be in Formula 1 next year, I have decided to participate in the Formula E world championship."

The 2015 FIA Formula 3 European and 2016 F2 runner-up added: "[Formula E] is a category which I always followed. I would like to thank Jay Penske who immediately showed great interest for having me on board."

Giovinazzi did test for what was then known as DS Virgin Racing at Marrakech in 2018, where he beat temporary team-mate Joel Eriksson to seventh fastest. It is Eriksson, who was drafted in to replace Nico Muller (the Swiss opting to focus on DTM last season) who has had to make way at Dragon for Giovinazzi.

A contract extension for incumbent qualifying ace Sergio Sette Camara does ensure that the team has both its drivers locked in ahead of



pre-season testing in Valencia next week, unlike last year when Muller's negotiations dragged on until 10 days after running in Spain had finished.

Owner and team principal Penske, whose squad placed 11th of the 12 teams last season, added: "Antonio is among the most talented drivers in the world, and I am very proud to have him joining the team. We are fortunate to now have what I believe to be one of the strongest line-ups." MATT KEW

De Vries and Vandoorne to try IndyCars

INDYCAR

Mercedes Formula E drivers Nyck de Vries and Stoffel Vandoorne will both get the chance to try out IndyCar Series machinery in a test next month at Sebring.

Ex-McLaren F1 racer Vandoorne will take part in the 6 December test with Arrow McLaren SP. The team is planning to run



three IndyCars full-time in 2023 and has suggested it could start preparing for that with a mid-season expansion in 2022.

Meanwhile, FE champ de Vries's test will come with Meyer Shank Racing, although the 2021 Indy 500-winning squad has no plans to expand for next season beyond its veteran line-up of Helio Castroneves and new-for-2022 signing Simon Pagenaud. Team co-owner Michael Shank told

Autosport: "We're always looking to the future... We keep an eye on who's out there, who's performing well and thinking about what our needs are going to be. We're continually building and evolving our team.
"And from my perspective at least, Nyck is a guy that is really a standout, a rockstar.
Formula 2 champion, Formula E champion...
Is it a potential move for us? I don't know, but I'm going to make sure that as we move forward we're covering ourselves. He could be in a sportscar, he could be in an IndyCar
we just want to see what he's about." Meanwhile, there are a handful of seats still open in IndyCar. Although Takuma Sato and Indy Lights runner-up David Malukas are all but confirmed at Dale Coyne Racing, and Dalton Kellett will likely stay at

AJ Foyt Racing to partner Lights champion Kyle Kirkwood, there is still the possibility of a third full-time entry there.

Ed Carpenter Racing is seeking backing to replace its outgoing US Air Force deal in order to sign up a road/street course driver for its #20 entry. Possibilities include Ryan Hunter-Reay, incumbent Conor Daly or a current F2 driver. It's believed that Juncos Hollinger and Carlin will team up but it's not yet clear whether this will be to run Callum Ilott and Max Chilton, Ilott and another driver, or Ilott alone.

DAVID MALSHER-LOPEZ

Lambo giant dives into DTM

DTM

Lamborghini is diving fully into the DTM next season. Renowned squad GRT Grasser Racing Team will field four Huracan GT₃ Evos with factory support from the Italian supercar manufacturer.

Austrian team GRT will put its entire focus on the DTM in 2022, scrapping its existing GT3 programmes in GT World Challenge Europe, ADAC GT Masters and the GT Daytona class of the IMSA SportsCar Championship.

The exact driver line-up will be unveiled in due course, but the team said its famed #63 entry will be piloted by a works Lamborghini pilot. Mirko Bortolotti is understood to be the favourite for the factory seat at GRT. The overall 2017 Blancpain GT champion starred in a guest DTM appearance with another Lamborghini squad, T3 Motorsport, this season when he finished second at Assen.

"I'm really thrilled to announce our upcoming venture in the DTM," said team boss Gottfried Grasser. "I'd like to thank Lamborghini Squadra Corse for their incredible support in this project. It's a childhood dream come true. The DTM is one of the most exciting and most popular racing series in the world, and to enter four cars in this field is a terrific challenge



we cannot wait to tackle."

GRT brings a wealth of GT racing experience to the DTM, and has enjoyed success on both sides of the Atlantic since joining the Lamborghini fold in 2015. Its accolades include class wins in the Daytona 24 Hours and Sebring 12 Hours, as well as Endurance Cup and overall titles in the Blancpain GT Series. It first flirted with the idea of racing in the DTM in 2021 to coincide with the series' switch to GT3 machinery, but decided to put those plans on the backburner for a year. T₃, which entered two Huracans this year for Esteban Muth and Esmee Hawkey, has yet to formally commit to the 2022 DTM.

Lamborghini Squadra Corse chief Giorgio Sanna said: "We are highly delighted to expand our commitment in the DTM together with Grasser Racing. Since the beginning of our collaboration, we have forged a unique relationship. The DTM is a valuable marketing platform and a challenging competition for us to move ahead into the future." **RACHIT THUKRAL & SVEN HAIDINGER**



Merhi victorious on Tasman bow

TASMAN SERIES

Ex-Formula 1 driver Roberto Merhi is midway through a cameo appearance in Australia's V8-powered S5000 series.

The Spaniard has joined the category for its two-round Tasman Series, which kicked off at Sydney Motorsport Park last weekend. He made a conservative start with fifth in race one, followed by second on the road in race two after a spirited battle with Aaron Sunday's 'main event' race was held in wet conditions. Merhi gave chase to leader Cameron in the early stages before he spun and dropped back to fifth, but recovered to third behind Cameron and reigning Gold Star winner Joey Mawson.

Cameron holds a 19-point lead in the Tasman Series over Merhi and race one winner Tim Macrow. It concludes at next week's Bathurst 1000, which is the category's competitive debut at Mount

Cameron. That later became a win when first-on-the-road Jordan Boys's car failed post-race scrutineering. Panorama. The champion will pocket \$30,000 of a total prize pool of \$50,000. ANDREW VAN LEEUWEN



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25 NOVEMBER 2021 AUTOSPORT.COM 7



IMSA SPORTSCAR

Brits Tom Blomqvist and Oliver Jarvis will team up at the Meyer Shank Racing Acura squad in the IMSA SportsCar Championship next year. They will join forces in the MSR Acura ARX-05 Daytona Prototype international after successful 2021 programmes respectively in the World Endurance Championship with the Jota LMP2 team and Mazda in IMSA.

Former BMW factory driver Blomqvist is making a full-time switch to prototypes after his first complete season in the discipline this year alongside racing in Formula E with NIO. The IMSA programme will preclude him taking up an offer to remain with the Chinese entrant.

"After I left BMW in 2019, the goal was to find a path back to what I felt was the best place for me," said Blomqvist (inset, above). "I have a formula car background, racing fast, high-downforce machinery. That is where I feel most comfortable.

"I went out to test for MSR at Atlanta in October and had these options in front of me. With the future of sportscars looking so bright with LMDh coming in 2023 and what I felt was right for me as a driver, that led me to the decision to go down this road."

MSR has a long-term contract with Acura and there is a clear intent on both sides to move forward into the LMDh era. Blomqvist also expressed a desire to continue in the WEC and is expected to remain with Jota.

Jarvis explained that remaining in IMSA was his primary goal on the announcement that Mazda would not be continuing into 2022. "I've really enjoyed my four years in IMSA with Mazda," he said. "I have seen what MSR can do and it was also important to position myself with a team that is going to be on the grid for LMDh. That certainly played a part in the direction I've taken."

Four-time Indy 500 winner Helio Castroneves will contest the four IMSA enduros in the solo MSR Acura alongside a full programme with the operation's IndyCar squad. Blomqvist and Jarvis have replaced Dane Cameron and Olivier Pla. GARY WATKINS

UK winners spread wings for Regional testing

FORMULA REGIONAL

British Formula 4 Championship runner-up Matias Zagazeta and



Among a big cluster of F4 rookies predominantly from the German and Italian series, the fastest was French champion

GB3 race winner Roman Bilinski were among the 35 drivers who took part in last week's two-day Formula Regional European Championship by Alpine test at Barcelona.

Peruvian Zagazeta turned out with Trident, which is replacing JD Motorsport in the series next year on its expansion from its traditional FIA F2 and F3 teams. British-born Pole Bilinski tested with leading French squad R-ace GP at the Spanish circuit.

After a rain-affected first day, everyone set their times on the second, with Kas Haverkort, a regular this year in FRECA with MP Motorsport, going quickest on his switch to Van Amersfoort Racing. ART Grand Prix's Gabriele Mini was second from team-mate Mari Boya, who raced this season with VAR. Esteban Masson with the MP-run FA Racing squad. Sebastian Montoya and Lorenzo Patrese, F4 graduate sons of F1 race winners, took part with Prema Powerteam and Monolite Racing respectively. Many of the teams then went to Paul Ricard for an unofficial test this week. Bilinski switched to Arden, Zagazeta to ART, while GB3 race winner Christian Mansell joined the fray with R-ace and Abbi Pulling with FA.

Tony Dron 1946-2021

OBITUARY

To classify Tony Dron, who died last week, as a journalist racer was missing the point. He was an accomplished professional racing driver who also wrote brilliantly. Those skillsets endured for over 40 years.

Dron was unfeasibly tall for singleseaters, but from 1968, when he and James Hunt were impecunious frontrunners in Formula Ford's first full season, he won hundreds of races in cars from 24 marques, before ongoing breathing problems forced him to hang up his helmet in 2012.

Fifth in the 1974 Spa 24 Hours (with Andy Rouse in a Triumph Dolomite Sprint) and 1982 Nurburgring 1000Km (sharing Richard Lloyd's Porsche 924 Carrera GTR), 12th and 13th at Le Mans in 1982 and 1983 in works 924 Carrera and Richard Cleare's 934, and a Nurburging 24 Hours class win (BMW M3) topped his international CV.

Educated at London's College of Aeronautical and Automotive Engineering, Dron did not plan to be a wordsmith but, having worked with entrepreneur Nick Brittan, joined *Motor* as road test editor in 1971. He graduated from the Ford Escort Mexico Challenge to the 1974 British Saloon Car Championship, racing Broadspeed Dolomites alongside Rouse. A solo third in Silverstone's RAC TT enduro, behind two Chevrolet Camaros, marked rivals' cards.





A Unipart-backed F3 season with a March 763 was hampered by the Dolomite engine, which, in air-restricted form, was no match for Novamotor's Toyota. Second and third in the subsequent BSCCs with works 'Dolly Sprints' featured Dron winning six rounds outright, including Silverstone's 1977 British GP and 1978 International Trophy counters.

Dron won the 1978 Porsche 924 title while selling cars for Newcastle dealer Gordon Ramsay. Returning to journalism, he edited *Classic Cars* for more than a decade. Latterly his words graced *Octane*.

The proud BRDC member scored countless Historic successes, none greater than a wonderful Goodwood Revival Sussex Trophy hat-trick from 2001-03 in Harry Leventis's ex-Phil Hill/Wolfgang von Trips Ferrari 246S. But his favourite win was in the 1999 Eifel Klassik at the Nurburgring Nordschleife, beating over 180 rivals from pole in a Ferrari 330 LM/B.

Autosport offers sincere condolences to Tony's wife Charis, his three children Amy, William and Katy, and his brother Peter, also a motoring writer.

IN THE HEADLINES

GREENSMITH STAYS ON

Gus Greensmith will continue with M-Sport in 2022 for his third full season in the World Rally Championship. The Briton scored five top-six finishes this year, including a career-best fourth on the Safari Rally. He joins Craig Breen at the squad, while the third seat in the all-new Ford Puma WRC machines is expected to be filled by Greensmith's existing team-mate Adrien Fourmaux. Talks are ongoing with nine-time world champion Sebastien Loeb to pilot a fourth car on selected events.

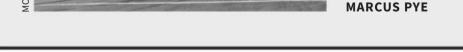
MORE F2 FOR BOSCHUNG

Formula 2 regular Ralph Boschung will remain with Campos Racing for a second successive season in 2022. The Swiss made his category debut as long ago as 2017, but financial shortfalls precluded him from ever undertaking a full campaign until this year. He lies 12th in the points with two rounds remaining, providing a boost in morale to a team that was devastated by the passing of founder Adrian Campos during last winter.

FINN TEEN STARS IN FERRARI

Ferrari's annual Ferrari Mondiali for participants in its global one-make challenge series took place last weekend at Mugello, and was won by 17-year-old Finn Luka Nurmi. Under pressure from Italian Niccolo Schiro, Nurmi (below, leading) held on to triumph in the prestige Trofeo Pirelli element, with American endurance racing specialist Cooper MacNeil taking third. Michelle Gatting tied up the Trofeo Pirelli Europe title earlier in the weekend, but was delayed in the big event during the incidentpacked opening laps.







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25 NOVEMBER 2021 AUTOSPORT.COM 9



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Mistakes Red Bull cannot repeat

With momentum shifting Mercedes' way in the F1 title fight, its rival squad can't afford to perform anything less than perfectly in the final two rounds

ALEX KALINAUCKAS

omentum is critical in motorsport. There's the obvious reason of physics, but it's also a tangible perception stemming from results. It can have positive and negative impacts on competitors. In Formula 1 2021's endgame, momentum has

been swinging wildly between the title protagonists.

Just after Mercedes took assured wins in Russia and Turkey, Red Bull's Austin surprise and stunning Mexico domination took Max Verstappen 19 points clear of Lewis Hamilton. But the seven-time champion hit back majestically in Brazil and Qatar — two races that had been expected to favour Red Bull.

Now there are just two rounds left, in Saudi Arabia and Abu Dhabi. Each of those venues poses significant challenges for the teams. Recently, Red Bull has been rather undone by some 'new' factors. There was the water-blasted track surface at Istanbul Park, where it went the wrong way on set-up trying to get the tyres working and Verstappen, a wet-weather supremo, ended up being comfortably beaten by Valtteri Bottas.

In F1's first visit to Qatar, the teams found that the Losail surface was smoother than many had been expecting, which meant the drivers had to work hard to build critical tyre temperature while also find a way to keep them alive on the high-energy layout. After coming home behind Hamilton for the second time in two races, Verstappen hinted that this was to blame for his latest defeat.

"This year deserves a thrilling, legal, wheel-to-wheel fight somehow sealing the title"

Sergio Perez was also absent from the race's lead fight after his

according to Hamilton. He also suspects his team has closed the gap to Red Bull in the high-speed corners where Verstappen's squad was previously dominant. When asked after his Qatar triumph if he agreed with this assessment, Hamilton said: "Yeah, I think we just, as the year's gone on, have understood the car more."

There is still plenty of hope for Red Bull. It was on course to win so convincingly in Baku, F1's other fast street track, where Verstappen suffered a blowout that must feel really painful now. Had the two contenders finished where they were previously running in that race, the gap would now be 18 points instead of eight...

But the upcoming Jeddah track lacks the slower, 90-degree corners Baku possesses, and Mercedes has been on song of late when it comes to applying its various downforce arrangements to the latest layout challenge. Plus, Hamilton will get his fresher, potent engine back for that event. That he won *so* dominantly in Qatar without it was a powerful statement.

With the points gap between the title rivals now so small, any further collision between Hamilton and Verstappen comes with considerably greater risk for the championship leader than was previously the case now that his advantage has been trimmed. But any small error from either on the high-speed run between the walls at the next race will be costly. Sound pitwall tactics will likely be crucial, with Jeddah's 3.84-mile length looking likely to result in multiple safety cars or even red flags if the pack gets it even slightly wrong. Although it was risky, having Perez one-stop would have resulted in a double podium for Red Bull in Qatar.

How the teams react to adversity will also be critical. Toto Wolff reckons Hamilton is producing his best form after he was disqualified from Brazil qualifying - Mercedes felt an injustice was served when it was penalised for loose DRS screws meaning his damaged wing failed scrutineering, spurring him on. At Red Bull, Christian Horner's initial "rogue marshal" reaction to Verstappen's deserved Q3 penalty was really poor form and an unhelpful distraction for his squad. Discipline is key at this stage. Overall, anything can still happen to the title contenders. The Baku blowout, Verstappen's Q3 penalty saga, and a look back to the last time F1 had a multi-team title fight go down to the wire, at Interlagos in 2012, combine to reinforce this. In Brazil nine years ago, Vettel was spun around on the first lap and left to hobble home with a damaged car to claim his third championship. This year of tremendous spectacle deserves similar drama, ideally in the form of a thrilling, legal, wheelto-wheel fight somehow sealing the title.

struggles with the tyres in qualifying, with only Bottas's Q3 blunder saving Red Bull from a two-versus-one fight up front when Verstappen recovered from his grid drop.

Red Bull can't afford to get things wrong in a similar fashion on new ground at Jeddah next week. It needs to ensure its simulations are accurate and that the RB16B gets the tyres operating as needed. This is one of the most significant factors the team must ace if it wants to clinch a first F1 title since 2013 - given it won in Abu Dhabi last year when misreading the soft tyres undid Mercedes. Nailing the altered layout at the finale is also a must.

There is a real sense that Red Bull still has 2021's fastest package, but that it's somewhat wasting the car's potential, while Mercedes is "able to squeeze more performance out of the package", Red Bull can still stop Mercedes' momentum, regain its own and win the 2021 titles. But it must be perfect from now on to do so. #

P14 QATAR GP REPORT



Inconvenient truth on penalties

Some penalties are annoying but necessary. That's something F1 would do well to remember as the 2021 title fight reaches its climax

KEVIN TURNER

as it annoying that Formula 1 fans didn't get to see Max Verstappen start alongside title rival Lewis Hamilton in the 2021 Qatar Grand Prix? Yes. Was his five-place grid penalty correct? Also yes. There seems to be a feeling in some quarters

that penalties should be overlooked for the entertainment factor, particularly in the closing stages of one of the most engaging F1 championship fights in years. On the face of it, that appeals – we all want to see the protagonists battle it out – but it's a flawed position.

Any sport needs rules to ensure a level playing field. Some suggest that F1 is overregulated, but you have to acknowledge *why* that's the case. Over its seven decades, there are countless examples of teams or drivers pushing the boundaries of what is acceptable, whether it be technical controversies, on-track clashes or matters involving safety. Many have forced decisions that have then become enshrined in the rulebook. Whether or not you agree with a particular rule is not the point — the important thing is that everyone knows the name of the game at a given moment, which is why recent events have thrown up some issues.

Let's deal with the easy one first. It was right that Verstappen got his penalty in Q3 for not backing off under double-waved yellow flags. It doesn't matter if the marshal waving them made an error or not; competitors are meant to slow down or be prepared to stop if yellows are out. It's a rule that drivers have often played fast and

"Which rules are you prepared to overlook for the sake of the 'entertainment' factor?"

loose with, at all levels. There have been some near-misses in ${\rm UK}$

stages, the referees need to be even more on the case.

From an enthusiast's point of view, it was great that Verstappen wasn't given a penalty for running Hamilton off the road while they battled for the lead of the Sao Paulo GP. Hamilton recovered and got the job done. But, if we're honest, Verstappen probably *should* have been censured. First of all, drivers — including Hamilton — have been penalised for far milder moves. It seemed pretty clear that Verstappen had little intention of taking the left-hander normally, even before the onboard footage became available.

As if to try to avoid setting a dangerous precedent, while at the same time not allowing a review of the incident, the FIA suggested that different decisions could happen with different stewards. Apart from leaving the drivers confused about where they stood, this could also be used to make a case for having permanent stewards...

That ambiguity is also not firm enough given Verstappen's on-track behaviour. He has toned down some of the excesses of his early F1 campaigns, but he's shown little intention of giving Hamilton racing room when they go wheel to wheel. This season Verstappen has forced Hamilton to take avoiding action or go offtrack at Imola, Barcelona, Monza and Interlagos. Hamilton was adjudged to be at fault for the Silverstone crash, in which neither driver decided to avoid the accident, and Verstappen also picked up a penalty for their Italian GP shunt. The other instances have been allowed to slide, perhaps as part of the 'Play-On' clause that we've just heard about. That *might* be acceptable if the rivals involved were equally marginal in their moves, but mostly it's been Verstappen operating in – if we're being generous – the grey area.

Why is this important? Aside from the safety aspect, it's significant because it's looking increasingly likely that the title fight will go down to Abu Dhabi. If last weekend's result was repeated in Saudi Arabia, Verstappen would have a two-point lead going into the finale. If he was able to lead Abu Dhabi from the front, as he did in 2020, there'd be no problem. But what if Hamilton starts from pole? Might Verstappen be tempted to think a clash would be better than watching Hamilton disappear into the distance? By being lenient with Verstappen, F1 runs the risk of a 1990 Suzuka or 1997 Jerez-style finale. While both made headlines, they hardly showed the sport in the best light. Let's not have that situation in 2021. Hamilton and Verstappen have both been brilliant this year and their rivalry deserves a proper conclusion. F1 allowed Ayrton Senna to keep the 1990 title after the Japanese GP outrage. It removed Michael Schumacher from second in the 1997 standings after his (failed) clash with Jacques Villeneuve in the European GP. Would it strip Verstappen of a crown if he employed the same 'tactics' in 2021? Is that a call it wants to have to make? Given how long it took to make a decision on two yellow-flag qualifying infringements in Qatar, probably not.

club events this year, leading to suggestions that any instances of marshals being on track should be covered by safety cars because yellows aren't enough. To allow drivers at the sport's pinnacle to get away with ignoring them, even in error, would set a bad example. And there's another matter of principle to consider. Rules need to be applied consistently. You can't just say, 'Oh well that would spoil the fight at the front so we'll let that one go', because that would be unfair on those who played by the book. And where do you draw the line? Which rules are you prepared to overlook for the sake of the 'entertainment'factor? Can someone turn up with a bigger engine? That last question is facetious, but the point is nobody would expect the tech rules to be relaxed at the end of a campaign. If anything, when competitors are pushing to the limit in the closing



Instead of a fine he received generous applause from all present and gave a little boy an unforgettable memory

DAVE BAKER

Does the fine fit the 'crime'?

So, Lewis Hamilton is fined €5000 for undoing his seatbelts on the slowing down lap of the Sao Paulo Grand Prix so that he can pick up a Brazilian flag. A moment of celebration, paying homage to his childhood hero after winning in the country of that man's birth.

A week previously at Phoenix, Arizona, Kyle Larson performed a mega burnout that completely destroyed a rear tyre and the surrounding bodywork before stopping at the start/finish line to collect the chequered flag. After interviews, a team mechanic placed a large holdall on the passenger-side floor so that Kyle's six-year-old son could ride with his dad to victory lane clutching said flag. Instead of a fine he received generous applause from all present and gave a little boy an unforgettable memory.

This is the same Kyle Larson who lost his drive, his sponsors and his NASCAR licence following the use of a racial slur in an *iRacing* event during lockdown. Following all the procedures and education processes demanded of him he was given a second chance by Rick Hendrick, which he has repaid handsomely.

Meanwhile in the FIA's world, a driver who has espoused #WeRaceAsOne questioned the intelligence of a fellow competitor by using words that are offensive and disparaging to those with disabilities [this would be in FP2 at last year's Portuguese Grand Prix – ed]. Action taken by the FIA? Nothing. I find it all a sad reflection on the supposed pinnacle of motorsport. **Dave Baker**

Bradford, West Yorkshire

It's Hamilton who needs taking to task

Yes, Max Verstappen is a hard driver (Your Say, 18 November), but I'm not aware of him putting another driver in hospital.

Andrew Dale also talks about the "questionable" disqualification of Sir Lewis's car — nothing questionable



OPINION PIT + PADDOCK

motorsport fans just want that, not ongoing praise of the most privileged driver in the history of the sport. Chris Rose By email

How to deal with the sprint/pole issue

I have a suggestion for getting over the potential discrepancy over who gets credited with pole position when there is a sprint race at a grand prix.

Why not give the driver who is fastest in Q3 a locked-in pole position while the sprint sets the remaining grid positions? The polesitter would get more points than the sprint winner and could possibly save his equipment by not being obliged to take part in the Sprint. **Graham Dougall Southall**

about it, the rear wing was illegal, end of!

Strange we get no comments about Lewis Hamilton's dangerous driving at Silverstone. If any driver needs taking to task it is him. Let's have fair reporting, true

HAVE YOUR SAY, GET IN TOUCH

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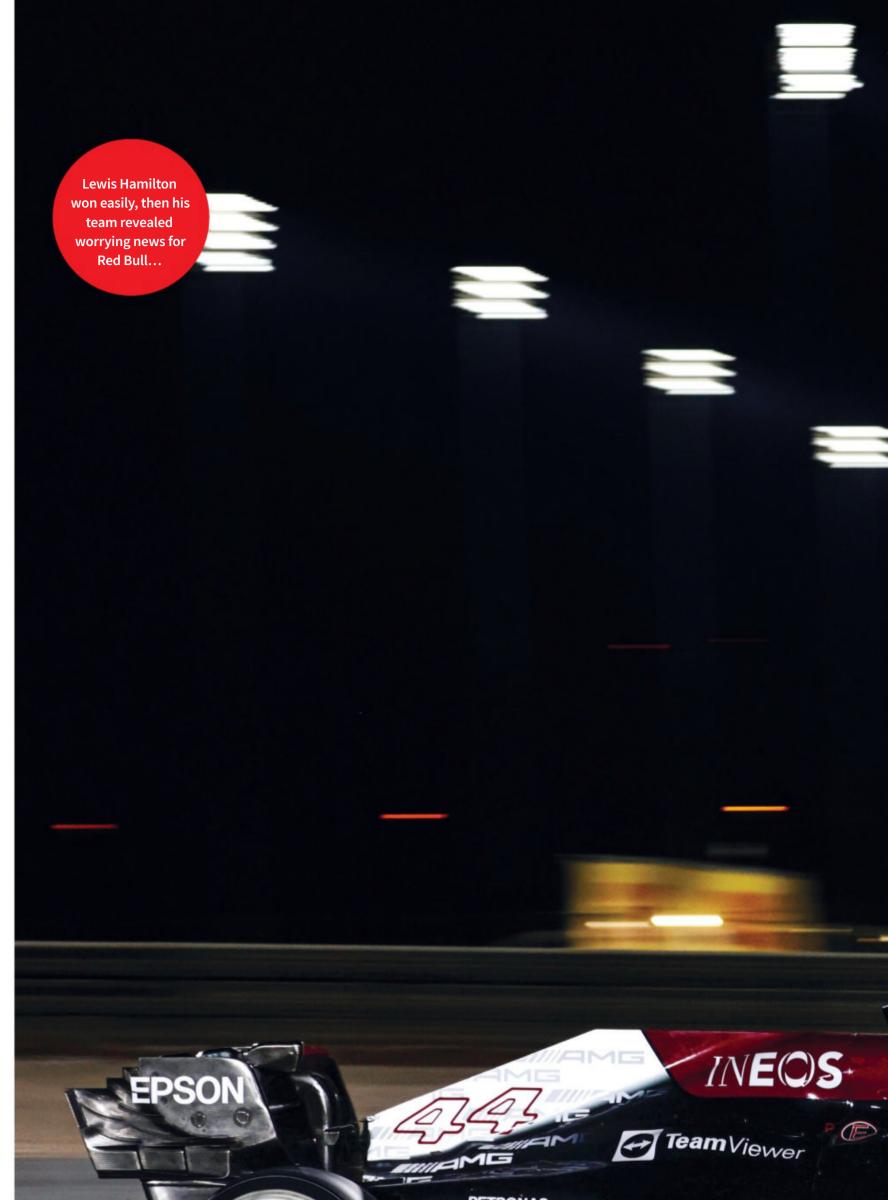
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QATAR GRAND PRIX • RALLY MONZA • WORLD OF SPORT





HAMILTON MASTERCLASS CUTS THE GAP TO VERSTAPPEN

The reigning champion never looked like losing the inaugural Qatar Grand Prix, and is now eight points behind his Red Bull rival with two rounds to go





ALEX KALINAUCKAS

PHOTOGRAPHY

motorsport IMAGES



CROWDSTRIKE





"THEY HAVE WOKEN UP THE LION. HE'S ABSOLUTELY ON IT. BRUTAL. AND COLD-BLOODED"

Toto Wolff is in no doubt that Lewis Hamilton's reaction to his qualifying disqualification at Interlagos has spurred his charge into producing his very best form just as this ultra-close title fight with Max Verstappen reaches its climax. Hamilton channelled his energy to a famous win in the middle of Formula 1's final 2021 triple-header, then drew on it again to absolutely dominate the championship's first visit to Qatar.

That he did it sporting a rainbow helmet livery to show his support for the LGBTQ+ community in a part of the world where basic human rights remain sadly restricted for some simply added to his greatness. This was Hamilton at his very best, all while actually missing a key Mercedes



strength that could have had him going even faster.

MAUGER

Hamilton has now started on the front row of an F1 race 171 times in his illustrious career. In Qatar, Pierre Gasly was making his first appearance at the head of the grid. Pre-race, paddock figures wondered how much the AlphaTauri driver would risk a bold move on Hamilton in a bid to help stablemate Max Verstappen's chances, with the Dutchman deservedly dropped five places from qualifying second for his late Q3 yellow-flag breach.

That incident had been caused by Gasly running wide over the raised kerbs behind the Turn 15 high-speed left (the Losail track's penultimate corner), breaking his front wing and giving him a puncture. It aided the Frenchman's high starting spot and foreshadowed the race's real drama. When the lights went out, Hamilton immediately moved right to cover Gasly's run on the inside line to the long, switchback Turn 1 right-hander,



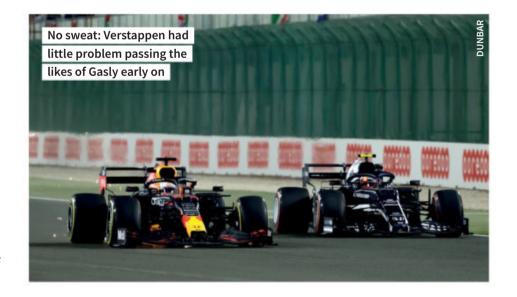
Hamilton leads, Verstappen cuts inside the squabbling Norris and Sainz after the start

and from there he promptly disappeared. By the end of lap one of 57, he was 1.9 seconds clear of the pack. "I generally felt I wasn't massively under threat," Hamilton said of his getaway. "I managed to cover the ground just off the start and after that it was just head down and focus on trying to bridge the gap."

He was soon doing so over Verstappen, who made up for his Q3 mistake by making a brilliant start from seventh. First, he roared past the slow-starting and also-penalised Valtteri Bottas, the Finn finding "just no grip" on his Mercedes' cold tyres.

At Turn 1, while Lando Norris and Carlos Sainz Jr were busy fighting on the outside line, Verstappen simply used his RB16B's awesome downforce advantage and hugged the inside like no one else could. That moved him up to fourth and almost fully alongside Fernando Alonso, the Alpine driver having chased Hamilton and Gasly closely through the opening corner from his penalty-elevated third-place starting spot.

Here, Verstappen was suddenly in trouble, as the unsighted Alonso swung right on the racing line into the long, left-hand Turn 2. Verstappen had to take evasive action and jinked half onto the artificial grass runoff to his right, dropping back behind Alonso and nearly Norris too. As Verstappen was dusting himself off, Alonso was putting in a brilliant exit from Turn 2 to get alongside Gasly and then pass him on the inside line at Turn 4 – not an easy overtaking place. He set off after Hamilton, with the former Red Bull team-mates chasing in his wake. Not long after Verstappen had complained he was"stuck"behind Gasly, the AlphaTauri driver slid off at the exit of the final corner and paved the way for the Red Bull to shoot past at the start of lap three. Two laps later, Verstappen used DRS to easily overcome Alonso on the main straight and, like so often this year, it was suddenly a two-horse race between F1's leading contenders.



11 laps. Verstappen was in clear air but found himself struggling with lift-

Except, really, it wasn't. By the time Verstappen had cleared Alonso, Hamilton was 4.2s ahead, an advantage he nearly doubled over the next

off oversteer at Turn 1 and understeer elsewhere as a result of minor front-wing-endplate damage he'd picked up during the opening two laps, with heavy kerb strikes at Turns 14 and 15.

"By trying to follow [Gasly] I just understeered a bit wide and this extra row of kerbs, they're quite aggressive and I saw a few sparks flying," Verstappen said of how he sustained his wing damage.

The kerbs were a key reason why the race played out the way it did. The track-lining purple-and-white Qatar-flag-coloured kerbs were actually very smooth all the way around the 3.34-mile track. But beyond them at the critical points of Turns 4-5, 13, 14 and 15 – particularly the latter three, which were taken at very high speed – were additional raised kerbs painted green. These were "standard FIA/FIM kerbs that we've seen at the last two corners in Austria forever", said race director Michael Masi and, just like at those famous turns at the Red Bull Ring, the combination

was putting front wings and tyres through severe punishment.

The problem was that climbing over the smooth initial kerbs was key to fast lap times, and from there it was very easy to strike the raised and serrated kerbs beyond that were doing all the damage. Just how much they could do would become apparent later.

With Hamilton stroking away out front, Red Bull, which had gone "into the race with the intention of a one-stop" for Verstappen according to team boss Christian Horner, decided to go aggressive as its only option to try to trouble the leader. This meant, as Horner added, that "we started to push harder" and then Verstappen was brought in for the first service of a two-stopper at the end of lap 17. He exchanged the medium tyres – of the

"I DON'T KNOW WHAT HAPPENED. THERE WAS NO WARNING. THE PACE WAS CONSISTENT, THE GRIP OK"

top 10 starters, only Verstappen, Hamilton, Sainz and Bottas had been running them in the opening stint – for hards.

Despite Hamilton's protestations that his mediums were still in decent shape — he'd brought his tyre-management prowess to bear while keeping his pace high, edging down the 1m27s bracket — Mercedes brought him in to mirror Verstappen's strategy. It knew that simply covering whatever Red Bull did with its lead car would be enough. This was because there was no threat from anyone else — Alonso was 20s back from the lead after 10 laps, and 34.3s adrift by the time Verstappen stopped, the Red Bull racer rejoining just ahead of the Spaniard.

During the second stint, Verstappen, aware that victory was already beyond his reach, requested Red Bull let him have "some fun" and push on regardless, the fastest lap bonus point now firmly on the mind of the two title contenders. They exchanged this accolade through the opening part of their second stints but, 15 laps after Hamilton's stop, there was suddenly something much more interesting to worry about.

After his slow start, Bottas had rallied, Wolff urging him on as he'd fallen to 11th on the opening lap and had initially looked as if he'd struggle to gain any spots back. But with overtaking — almost entirely into Turn 1 — proving to be easier than many had expected, Bottas was able to recover substantial ground. He passed Lance Stroll, Sainz, Esteban Ocon and Norris as he rose back up the order during a long opening stint, aided by the AlphaTauris pitting out of his way as they deployed the two-stopper.

Bottas was still running on his starting mediums by lap 33, now in third place (Alonso, 10s to the net good, had just pitted), and had hopes of recovering to the podium when disaster struck. In scenes reminiscent of the 2020 British Grand Prix, Bottas's left-front tyre punctured as he went



through Turn 1, and he had to tour back to the pits. As he did so, he sustained damage that would eventually force Mercedes to retire his car in the pits since there was no point piling on extra miles so late in the season with no hope of points.

"I don't know what happened," said Bottas. "There was no warning, no vibration. The pace was still consistent and the grip was feeling OK, so it just happened. Initially I thought the wind was getting stronger on the main straight as I felt the car was sideways, then it was puncturing at the first corner."

Mercedes therefore knew it had to "keep Lewis off the kerbs", according to trackside engineering director Andrew Shovlin, but Hamilton insisted that he was "never near any of them".

Nevertheless, both Hamilton and Verstappen reported feeling vibrations as their second stints neared the race's final 15 laps. On lap 41 of 57, Red Bull brought Verstappen in again to go back to the mediums, and so Mercedes duly did the same with Hamilton. The gap between them had not come down after the first stops — the undercut was not particularly potent — but Verstappen had managed to close to 6.3s before Hamilton edged away again to be 9s in front just before the second stops.

Just as attention was going back towards fastest lap honours and Alonso's quest to finish in the final podium spot (Bottas's exit had left the possibility that he could claim this, as long as he could resist Sergio Perez), the puncture drama returned.

On lap 49, George Russell's Williams also suffered a left-front tyre failure as he went over the kerbs through the shallow Turn 8 left, which dropped him out of 16th. Russell had known coming into the race that "the outside shoulder of that front left was the limitation, probably 10cm of the

Puncture for Bottas led to an eventual retirement for the second Mercedes



QATAR GP RACE CENTRE





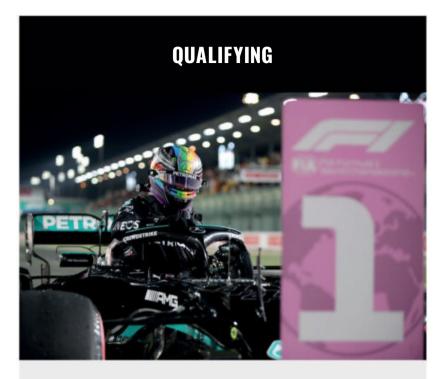
outside, and it would literally just go at some point if we kept pushing it". But in his hurry to stay in front of Kimi Raikkonen, his kerb strike on the worn rubber led to the puncture. And it just kept happening.

"The high wear for sure [played a part]," said Pirelli motorsport boss Mario Isola, while promising an investigation into the issue, "because all the tyres were completely worn. The impact on the kerbs at high speed because on almost all laps [where punctures happened] they were running on kerbs — the fact that we have some cuts on the tyres [were all factors]. It's difficult to say [if the cuts] can be caused by something before or after the loss of pressure."

Nicholas Latifi then slowed in the other Williams after his own leftfront let go, with Norris also dropping out of fourth soon afterwards when the same thing happened to him — albeit at Turn 14 — with eight laps remaining. But Latifi's problem had the biggest bearing on the race, because he was ordered to pull off at the Turn 6 hairpin and retire (Russell and Norris got back to the pits, their punctures occurring late in the lap).

As the marshals recovered Latifi's car, the virtual safety car was activated. This had two main knock-on effects.

For the leaders, Red Bull opted to bring Verstappen in a third time to make certain that the fastest lap he already held would remain his. This dropped him to 35s behind Hamilton, and with a full green-flag final lap with which to deploy the red-walled rubber. The leader was already two corners into the final tour when the VSC ended, and so had no chance to even try to scoop the bonus point. But the bigger impact occurred in the battle for third, which was between Alonso and Perez – after Gasly's threat had disappeared with shocking pace in the pack on his two-stopper, Norris couldn't bother the Alpine before his misfortune, and Bottas's puncture removed him. Perez had made steady progress up the order from his lowly grid spot during the first stint and was given the same two-stop strategy as Verstappen. He questioned this from the cockpit when the second stop dropped him back behind Alonso, who he'd passed in a gripping wheel-to-wheel fight through Turns 1-2 on lap 33. But afterwards he accepted that Red Bull had "played it safe with the explosions of the »



Two stories dominated qualifying: Lewis Hamilton's actions, and those of the drivers behind him.

The world champion ended the opening day of practice feeling "a little bit slow", as team-mate Valtteri Bottas showed good speed on a new, green track. But there was a key reason for this. Mercedes had deliberately diverged on their respective car set-ups as it worked out which of the various levels from its downforce package was best for the 3.34-mile track. It quickly concluded that the arrangement on Bottas's car was, and so moved Hamilton to that.

After the sun had dipped and disappeared and the Q1-Q2-Q3 session got under way, Hamilton headed the opening segments. He negotiated the switch to the medium tyres in Q2, which undid Sergio Perez, the Red Bull eliminated in 11th with its tyres not up to temperature – Perez rued not getting a preparation lap after going back to the softs right at the end. Carlos Sainz Jr impressively made it through on the advantageous first-race-stint rubber, which only the two Mercedes drivers and Max Verstappen were able to do ahead.

In Q3, Hamilton headed the order after the first runs, his 1m21.262s putting him 0.162s clear of Verstappen and 0.216s in front of Bottas. He then left the pits at the head of the pack for the second and final runs, and promptly pretty much put pole out of reach. In the first sector alone, Hamilton gained 0.307s on his previous best, and from there he gained a tenth more as he rocketed to a

1m20.827s. He perhaps left some time missing the apex at the Turn 6 hairpin, but his commitment through the Turns 12, 13, 14 and 15 high-speed corners at the end of the lap was stunning, the car reacting in a

"IT'S ALL ABOUT GETTING THE FLOW AND USING ALL THE TRACK. IT FELT AMAZING"

W11-at-Spa-esque way. "It's all about getting the flow and using all the track," Hamilton explained. "It felt amazing." Verstappen, who had retreated to the higher-downforce rear-wing set-up he'd used to top FP1, felt he was "actually happy in quali again but just not quick enough". The real problem concerned the end of his final Q3 lap.

There, he passed double waved yellow flags out to cover Pierre Gasly's AlphaTauri, stricken near the pitwall after the Frenchman, who was running ahead of several cars including Verstappen and Bottas, broke his front wing and picked up a puncture running wide over the kerbs at the exit of the penultimate corner. Gasly, who qualified a superb fourth thanks to his first Q3 run, stopped on the grid, with Verstappen and Bottas punished with grid drops for failing to respect the resulting yellow flags (see page 22) as they passed by.



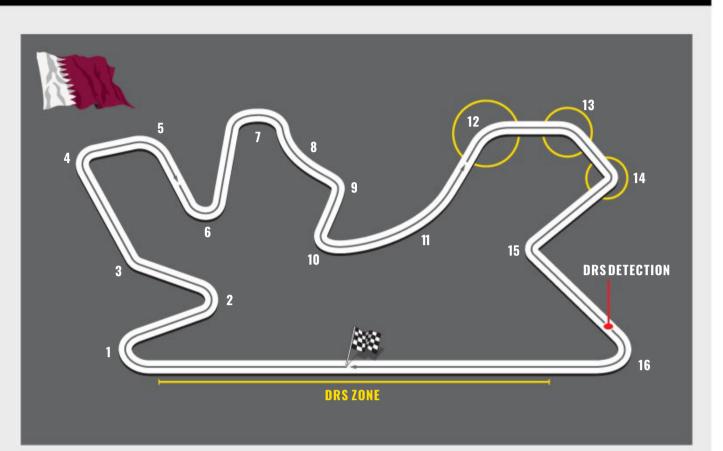
TRACKSIDE VIEW

The Losail International Circuit is making its first appearance on the Formula 1 calendar and is not endearing itself to a key group of paddock figures. They bring the action to life in these very pages, capturing motorsport's drama and speed forever: the photographers. The championship has been racing in the desert for many years now, but this made-for-MotoGP venue is very much a bike track. That means no elevation. Add in the generic corners and lack of surrounding landmarks and that's a real problem.

Autosport could really see what our colleagues at Motorsport Images meant when we wandered around the first sector during FP1. Everything looked the same and everything looked very easy for the drivers, who really enjoy the 3.34-mile layout, with pretty much constant corners once they've traversed the lengthy main straight.

For FP3, we decide to try the track's other side – the high-speed corners in the final sector. We're interested because paddock sources suggest this is one of the few areas where Red Bull has been gaining time on Mercedes through FP1 and FP2.

It's a bit of a long wait thanks to Nikita Mazepin causing an early red flag when he stops in the pit exit with an engine control unit issue. But after 15 minutes, Lewis Hamilton arrives. There have been only a few cars through the rapid, 90-degree Turn 14 right so far, but



"HAMILTON IS DOING SOMETHING DIFFERENT – AND HE'S THE ONLY ONE DOING IT"

the world champion does something different – and he's the only one doing it all session. Hamilton goes so tight to the apex that his right-front runs off the kerb and clips the artificial grass beyond it, sending a plume of dust and sand skywards as he scampers to the corner exit. Daniel Ricciardo and Charles Leclerc will later get tight here too, but not to nearly the same degree, nor move so much sand. Valtteri Bottas's line is wider, which means he reaches the outside kerbs later than Hamilton, who is grappling with his W12 but appearing to carry much more speed.

The Red Bulls spend plenty of time in the garage having their rear wings fettled but, on the few occasions they do appear, they are majestic. The higher-downforcelevel RB16B requires much less kerb – also true exiting the preceding Turns 12-13 double rights that form a momentum-building bowl before the drivers reach our vantage point. It's a tricky complex – the Williams drivers are actually having what head of vehicle performance Dave Robson later calls "a gentleman's lift" before hitting the apex, while Yuki Tsunoda regularly clatters the exit kerbs running wider than most. At the end we get a big treat, Mick Schumacher making a spectacular save as his Haas jinks left in the rising winds.

With the Losail Multipurpose Hall as something of a background, this spot at least makes for varied viewing. The cars make it great. No wonder we're surrounded by photographers – we're on their patch after all.

ALEX KALINAUCKAS





tyres out there, thinking more in the long-term picture".

But Perez still might have had a chance to rescue third. He was gaining on Alonso by 0.46s per lap in the 13 tours leading up to the VSC - that included passing Lance Stroll and Esteban Ocon, who couldn't reproduce the defence his team-mate had summoned against Hamilton when Ocon's win was under threat from the charging Mercedes in Hungary.

Alonso, who narrowly avoided a late crash when the lapped Mick Schumacher careered back onto the track from the Turn 15 runoff after an off, insisted:"We had some margin to keep pushing a little bit more."

In any case, the VSC timing ultimately meant Perez could only reach 2.8s behind Alonso at the flag, the Alpine driver claiming his first podium since the 2014 Hungarian GP. Far up ahead, 25.7s clear of Verstappen (who took the fastest lap with a 1m23.196s on the final tour) and nearly a minute in front of Alonso, Hamilton took his 102nd F1 win.

His result cuts Verstappen's points lead to eight, but it was the manner of the defeat that should worry Red Bull ahead of 2021's final two races.

Hamilton was clearly on it and still fired up from his Brazilian adventures, but Red Bull seemed to get it wrong when it came to the tyres



"THERE ARE TWO ENGINES WE ARE RACING. HERE WE HAD THE LESS POWERFUL OF THE TWO"

on the Qatar track surface. This has not been changed since the asphalt was laid back in 2004 and, when the teams rocked up to their third continent in three weeks, they found it was much smoother than they had expected. This meant they had to correlate their pre-event simulation expectations with what the drivers were finding on track in practice.

The unexpected smoothness meant working hard to reach the right tyre temperatures on the hardest three compounds in Pirelli's range, which seemed to undo Red Bull. It could be seen in Perez's Q2 exit, while Verstappen alluded to his own struggles in this area in the post-race press conference, where he answered the question of what he thought the ultimate difference was to Mercedes in Qatar.

"These tyres,"he said somewhat cryptically. "Sometimes you nail them and you get quite a bit of grip. If you're not on top of it, sometimes you can make a bit of a difference as well."

But there was a stunning conclusion to come from Mercedes post-race. Hamilton had not actually been racing the engine he'd taken a grid drop to receive last time out in Brazil - the one that Red Bull estimates is worth 0.2s in freshness alone. Mercedes was saving it to deploy its potency once again on the high-speed new street track apparently close to being

finished in Jeddah.

"There are two [engines] that we are racing," explained Shovlin of Hamilton's remaining, and expanded, power-unit pool. "Here we had the less powerful of the two in the car due to the nature of the circuit." F1's first Oatar GP was a Hamilton masterclass. It shouldn't escape anyone's attentions that he simply could

have finished further ahead

with his full engine might. #

NEXT F1 REPORT

SAUDI ARABIAN GP **9 DECEMBER ISSUE** F1 heads for a new street track that is in a race of its own to be finished in time. Will Hamilton close further on Verstappen before the Abu Dhabi climax?

STROLL LEADS STRONG RESULT FOR ASTON

Lance Stroll secured sixth place, his best result of 2021, to lead a double points haul for Aston Martin in Qatar.

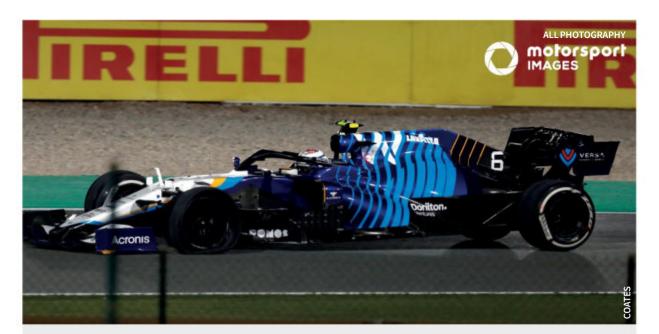
The Canadian made up two places on the opening lap and overtook Yuki Tsunoda on lap nine to rise to ninth. Aston Martin pitted Stroll to undercut Carlos Sainz Jr and, coupled with punctures for Valtteri Bottas and Lando Norris ahead, as well as AlphaTauri's pace disappearing on their two-stop strategy, Stroll ran sixth with nine laps to go. With Sainz closing again, Stroll was able to use DRS and slipstream from Esteban Ocon to defend sixth and take his best result since his 2020 Sakhir Grand Prix podium.

"The car was feeling good from the first lap — we got past Tsunoda at the beginning and caught up to the group ahead," Stroll said. "We had good car pace."

After dropping from 10th to 17th at the start, Sebastian Vettel put in a strong recovery to return to the final pointspaying position by the finish.

"I was squeezed because Valtteri had a bad start, I had nowhere to go," Vettel claimed. "There was a lot of dust, a lot of cars around me and I lost the car on entry to Turn 1 trying to recover positions and went wide. It was a struggle. We came back to P10, a reasonable recovery, but starting on the back foot hurt."





Pirelli ruling nothing out ahead of puncture report

Pirelli will investigate the causes of the punctures that blighted the second half of Formula 1's first visit to Qatar, with high loads on excessively worn tyres, kerb strikes and debris, or a combination of factors all suspected as potential triggers.

The hot conditions and highenergy Losail International Circuit layout meant the teams were struggling with degradation problems, despite one-stop strategies being optimal in Sunday's race. Lewis Hamilton and Max Verstappen were so far ahead they could afford to pit at least twice to avoid any issues with tyre wear, but those behind were split between the two strategies, with the one-stop runners getting ahead. Sergio Perez finished as the next highest two-stop runner.

Perez was prevented from having a chance to climb higher because of the virtual safety car, which was triggered after Nicholas Latifi's left-front tyre let go at the final corner on lap 48. This was shortly after his Williams team-mate George Russell had suffered a similar problem and 15 tours after Valtteri Bottas's onestopper had been thwarted by his own puncture. Lando Norris dropped out from just ahead of Perez with the race's final puncture. Pierre Gasly's in qualifying, after he'd knocked his front wing off going wide over the heavy kerbs at the Turn 15 exit, had been the first.

"To understand the actions against the puncture, we need to understand the causes first," said Pirelli motorsport boss Mario Isola. "So, if we are talking about the kerbs, for sure we are going to provide a report to the FIA also on our findings, and then we will discuss that — as usual when we have a puncture.

"Pushing, and clearly with a tyre that is worn and less protected against impact, [means] you continue to punish the tyre. Then if it was a cut, or it was a loss of pressure, that is difficult to say. [In Gasly's qualifying incident] we saw what happened with the front wing. We had several cars damage elements like floor, wings, chassis [in practice]. We don't want to exclude anything."

BIG NUMBER

13

So far in 2021, 13 different drivers have scored podiums. That also happened in 2005, 2009 and 2012. Fernando Alonso is the only driver to have contributed a rostrum visit in all of those seasons.



QATAR GP RACE CENTRE

PIERRE GASLY ALPHATAURI DRIVER

How did you go from starting second to finishing 11th? It was very

frustrating; our pace was shocking, basically. But we tried to stick with Fernando [Alonso] for the first few laps. I could barely make it and then after that we tried to go for an aggressive two-stop strategy but the pace was never there. I tried to push as hard as I could in the car, and even with fresher tyres than Fernando I was miles away when he was on used tyres. It was so frustrating. We changed the front wing and floor after the incident in quali; I don't know if it had an impact. We used the medium tyres in



quali that we used again in the race, they were not brand new - I don't know if that had an impact. We need to review everything because I was even pushing really hard on the tyre and the

Q&A

lap times were never there.

What felt like it changed from Saturday to Sunday?

Not even [that much] but just when we pushed, we overheated the front [tyres] really quickly and put so much energy in the tyre [because] we're sliding. So, apparently over one lap we can take it, but over the whole race distance it was difficult. For me even on brand new tyres in the first lap, when I'm pushing flat out, still my

lap times were not that great.

Was a different strategy possible in this race?

We could have done five stops, three, two, one – it doesn't matter. Honestly, it was just our pace. We're just too slow and even behind Seb [Vettel's Aston Martin] I couldn't pass him and I didn't have the pace. So, it's very frustrating.

What do you make of your constructors' rival Alpine's result?

Alpine surprised us in more than one way this weekend. I mean, already their qualifying pace was impressive. Their race pace was really impressive. But I think [Sunday's race] was the most impressive performance they have done [all year].



Ferraris take different routes to make a formation finish

The two Ferrari drivers ended up line dropped back from his fifth-place grid spot. Leclerc battled his way past Kimi astern in seventh and eighth at the end in Qatar. That was despite the SF21s starting Raikkonen in the early stages, then was eight places apart thanks to penalties passed himself by the already-stopped elsewhere elevating Carlos Sainz Jr, who Fernando Alonso and Sergio Perez as impressively reached Q3 running the he ran deep on his one-stop strategy. medium tyres in Q₂, and Charles Leclerc After Yuki Tsunoda pitted out of Leclerc's way on a two-stopper, the Ferraris exiting in Q2 after cracking his chassis in a Q1 kerb-strike. came together and caught Stroll before the Sainz lost out attacking Lando Norris virtual safety car. But the Aston getting DRS and a tow from Ocon kept them at bay until the race finished.



VERSTAPPEN AND BOTTAS GET GRID PENALTIES... EVENTUALLY

Max Verstappen and Valtteri Bottas were given grid drops for the Qatar race following Q3 yellow-flag infringements.

After Pierre Gasly sustained a broken front wing and rightfront puncture on his last Q3 lap, single then double yellow flags were still showing after he'd stopped on the grid – after the electronic marshalling system went on and off as Gasly passed various marshal posts. Verstappen, Bottas and Carlos Sainz Jr were put under investigation, all suspected of not slowing sufficiently past the danger, with all three hearings delayed until Sunday afternoon.

Less than two hours before the start, Verstappen landed a five-place drop for failing to slow under double-waved yellows. Bottas was found guilty of passing Gasly's car under a single-waved yellow flag, so he was given a three-place penalty, while Sainz escaped punishment after it was demonstrated that he'd lifted sufficiently.

Confusion followed as the first issued final starting grid had Bottas in fifth – a drop of two places due to Verstappen's penalty. This was later changed to apply his full penalty, which resulted in a last-minute switch of grid positions with Sainz – before the cars had arrived. The fallout landed Red Bull's Christian Horner in hot water with the FIA after he stated a "rogue marshal" was to blame. He was given an official warning and apologised for the remark.

at Turn 1, then fell behind Esteban Ocon and was undercut by Lance Stroll as he

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DRAWING BOARD

GIORGIO PIOLA

MERCEDES REAR-WING ARGUMENTS CONTINUE...

Blindsided by the strong pace Mercedes has shown in recent Formula 1 rounds, Red Bull has accused the team of running an "illegal" rear wing. Team principal Christian Horner was staunch in his accusations, pointing to "score lines" on the Mercedes rear wing that he felt was indicative of it flexing.

The suggestion emerged that, at speed, the rear edge of Mercedes' mainplane was flexing downwards to "dump" drag in a straight line, opening the rear-wing slot gap and potentially offering more benefits with DRS. The mainplanes that F1 teams run have quite a high curvature, and the slot gap between the top plane and the mainplane has to be set at REAR EDGE OF REAR-WING MAINPLANE IS FLEXING DOWN, SAYS RED BULL

10mm. If the mainplane flattens out, then this cuts a good chunk of drag out of the bottom part of the wing, and effectively stalls the upper part to limit the overall drag too, giving a healthy top-speed advantage.

Even though the FIA tightened up its scrutineering processes to ensure there was no circumvention of the rules governing flexi-wings, Mercedes principal Toto Wolff explained that the images apparently showing the "score" marks were "a ghost". Horner explained that Red Bull would protest if it suspected Mercedes was running the alleged wing, while Mercedes says the allegations are false. We won't get this when technical show-and-tell kicks in next year... JAKE BOXALL-LEGGE

QATAR GP TECH

...BUT RED BULL HAS PROBLEMS OF ITS OWN

For all of its bellyaching over Mercedes' rear-wing design, Red Bull has endured problems of its own at the back. Over the past couple of races, Red Bull has had to change its rear wing ahead of the race after finding cracks, and it appears that the upper flap has been unable to cope with the top speeds along the straights.

FP1/FP2

During practice in Qatar, the RB16B's DRS-activated upper flap was oscillating wildly. That's not an uncommon sight if the circuit is bumpy but, on such a flat track, it



was a cause for concern. Therefore, Red Bull made changes to its DRS actuator crank in a bid to reinforce the design for FP3 but, after finding more cracks, it reverted to the previous specification for qualifying and the race.

In that FP3-only design, the endplate hinges were beefed up and the central mechanism was



also changed to try to redistribute the load paths and stop the wing from buffeting. Although the issues seldom hit in the race, as the speeds are lower than those seen in qualifying, Red Bull has been in a bit of a habit of changing rear-wing parts as they seem to be very susceptible to breaking. With the rapid Jeddah circuit next on the calendar, Red Bull probably quickly needs a fix to emerge. JAKE BOXALL-LEGGE

20 Mazepin #9 1m25.859s		18 Giovinazzi #99 <i>1m23.262s</i>		16 Raikkonen #7 1m23.156s		14 Ricciardo #3 1m22.597s		12 Stroll #18 1m22.460s		
•		•		•	A	•	A	•		
-	9 Schumacher #4 1m23.407s		17 Latifi #6 1m23.213s	-	15 Russell #63 1m22.756s		13 Leclerc #16 <i>1m22.463s</i>		11 Perez #11 <i>1m22.346s</i>	

FREE	PRACTICE 1		FREE	PRACTICE 2		FREE	PRACTICE 3		S	EAS	EASON STATS	EASON STATS	EASON STATS
POS	DRIVER	TIME	POS	DRIVER	TIME	POS	DRIVER	TIME					
1	Verstappen	1m23.723s	1	Bottas	1m23.148s	1	Bottas	1m22.310s			DRIVERS' CHAMPIONSHIP		
2	Gasly	1m24.160s	2	Gasly	1m23.357s	2	Hamilton	1m22.388s		1	1 Verstappen	1 Verstappen 351.5	1 Verstappen 351.5 1
3	Bottas	1m24.194s	3	Verstappen	1m23.498s	3	Verstappen	1m22.651s		2			
4	Hamilton	1m24.509s	4	Hamilton	1m23.570s	4	Gasly	1m22.835s		3			
5	Tsunoda	1m24.648s	5	Norris	1m23.632s	5	Perez	1m22.846s		4	and the second		
6	Sainz	1m24.713s	6	Stroll	1m23.705s	6	Sainz	1m23.048s		5			
7	Leclerc	1m24.790s	7	Tsunoda	1m23.735s	7	Alonso	1m23.186s		6			
8	Perez	1m24.915s	8	Perez	1m23.787s	8	Ocon	1m23.209s		7	7 Sainz		
9	Ocon	1m24.972s	9	Vettel	1m24.020s	9	Leclerc	1m23.276s		1			
10	Norris	1m25.215s	10	Sainz	1m24.033s	10	Tsunoda	1m23.567s		8			
11	Ricciardo	1m25.291s	11	Ocon	1m24.041s	11	Ricciardo	1m23.711s		9			
12	Vettel	1m25.328s	12	Alonso	1m24.056s	12	Vettel	1m23.884s		10			
13	Latifi	1m25.688s	13	Leclerc	1m24.095s	13	Norris	1m23.895s		11			
14	Giovinazzi	1m25.757s	14	Ricciardo	1m24.135s	14	Russell	1m23.923s		12			
15	Raikkonen	1m25.828s	15	Raikkonen	1m24.631s	15	Stroll	1m24.154s		13			
16	Russell	1m25.871s	16	Russell	1m24.954s	16	Raikkonen	1m24.246s		14			
17	Alonso	1m25.905s	17	Giovinazzi	1m25.072s	17	Giovinazzi	1m24.288s		15			
18	Schumacher	1m26.699s	18	Latifi	1m25.209s	18	Latifi	1m24.499s		16			
19	Stroll	1m26.712s	19	Schumacher	1m25.575s	19	Schumacher	1m24.680s		17			
20	Mazepin	1m27.500s	20	Mazepin	notime	20	Mazepin	notime		18	18 Giovinazzi	18 Giovinazzi 1	18 Giovinazzi 1 10
	-			-			-			19	19 Schumacher	19 Schumacher 0	19 Schumacher 0 12
WEATH	ER Sunny, air 28-30)C track 38-42C	WEATH	ER Night, air 26-27	C track 29-31C	WEATH	ER Sunny, air 27C t	rack 34-38C		20	20 Kubica	20 Kubica 0	20 Kubica 0 14

SPEED TRAP (QUALIFYING) 206.9mph Haas Alfa Romeo 204.4mph Williams 204.1mph Ferrari 203.7mph AlphaTauri 203.7mph Alpine D 203.3mph **I** 203.1mph McLaren Aston Martin 201.5mph **201.3**mph Mercedes Red Bull **199.3mph**

POS	DRIVER	TIME	POS	DRIVER	TIME	POS	DRIVER	TIME
1	Hamilton	1m21.901s	1	Hamilton	1m21.682s	1	Hamilton	1m20.827s
2	Verstappen	1m21.996s	2	Gasly	1m21.728s	2	Verstappen	1m21.424s
3	Bottas	1m22.016s	3	Alonso	1m21.894s	3	Bottas	1m21.478s
4	Sainz	1m22.304s	4	Verstappen	1m21.984s	4	Gasly	1m21.640s
5	Perez	1m22.398s	5	Bottas	1m21.991s	5	Alonso	1m21.670s
6	Alonso	1m22.422s	6	Ocon	1m22.012s	6	Norris	1m21.731
7	Tsunoda	1m22.458s	7	Tsunoda	1m22.058s	7	Sainz	1m21.840s
8	Gasly	1m22.535s	8	Vettel	1m22.146s	8	Tsunoda	1m21.881
9	Vettel	1m22.549s	9	Norris	1m22.216s	9	Ocon	1m22.028
10	Stroll	1m22.551s	10	Sainz	1m22.241s	10	Vettel	1m22.785
11	Ocon	1m22.565s	11	Perez	1m22.346s	WEATH	ER Night, clear, air	25-26C
12	Ricciardo	1m22.688s	12	Stroll	1m22.460s	track 28		
13	Leclerc	1m22.742s	13	Leclerc	1m22.463s			
14	Norris	1m22.839s	14	Ricciardo	1m22.597s		NEXT RA	CE
15	Russell	1m22.863s	15	Russell	1m22.756s		5 DECEM	RED
16	Raikkonen	1m23.156s					AUDI ARAB	
17	Latifi	1m23.213s				3		
18	Giovinazzi	1m23.262s					Jeddah	
19	Schumacher	1m23.407s					SE STATE	
20	Mazepin	1m25.859s						

10	Alonso	77	3	5
11	Ocon	60	1	5
12	Vettel	43	2	5
13	Stroll	34	6	8
14	Tsunoda	20	6	7
15	Russell	16	2	2
16	Raikkonen	10	8	12
17	Latifi	7	7	12
18	Giovinazzi	1	10	7
19	Schumacher	0	12	14
20	Kubica	0	14	18
21	Mazepin	0	14	18
CONS	TRUCTORS'CHAN	MPIONSI	HIP	
1	Mercedes			546.5
2	Red Bull			541.5
3	Ferrari			297.5
4	McLaren			258
5	Alpine			137
6	AlphaTauri			112
7	Aston Martin			77
8	Williams			23
9	Alfa Romeo			11
10	Haas			0

QUALIFYING BATTLE

Hamilton	14	5	Bottas
Perez	1	18	Verstappen
Ricciardo	6	13	Norris
Vettel	13	7	Stroll
Alonso	11	8	Ocon
Leclerc	12	7	Sainz
Gasly	19	0	Tsunoda
Raikkonen	7	11	Giovinazzi
Kubica	0	2	Giovinazzi
Mazepin	2	18	Schumacher

Latifi 1 18 Russell

Based on Q1/Q2/Q3 sessions, not sprint races. Events removed when one driver in a team could not record a representative time for reasons outside their control

WINS		POLEPOSITIONS	
Verstappen	9	Verstappen 8	;
Hamilton	7	Hamilton 6	;
Bottas	1	Bottas 3	:
Ocon	1	Leclerc 2	2
Perez	1	Norris 1	
Ricciardo	1		

Poles taken based on qualifying, not sprint races (official F1 scores would be Verstappen 9, Hamilton 4, Bottas 4)



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								STAR	TING GRID —
10 Vettel #5 1m22.785s	-	8 Tsunoda #22 1m21.881s		6 Bottas #77 1m21.478s		4 Norris #4 1m21.731s	-	2 Gasly #10 1m21.640s	2000 A.
•		•		•	*	•		•	
Series.	9 Ocon #31 1m22.028s		7 Verstappen #33 1m21.424s	9. <u></u>	5 Sainz #55 1m21.840s		3 Alonso #14 1m21.670s		1 Hamilton #44 1m20.827s

RAC	E RESULTS ROUND 2	0/22 (57 LAPS – 190.5	5 MILES)			FAST	EST LAPS			
POS	DRIVER	TEAM	FINISH TIME	LED	TYRES	POS	DRIVER	TIME	GAP	LAP
1	Lewis Hamilton (GBR)	Mercedes	1h24m28.471s	57	M u, H n, M u	1	Verstappen	1m23.196s	-	57
2	Max Verstappen (NLD)	Red Bull-Honda	+25.743s		M u, H n, M n, S n	2	Hamilton	1m25.084s	+1.888s	50
3	Fernando Alonso (ESP)	Alpine-Renault	+59.457s		Su, Hn	3	Perez	1m25.613s	+2.417s	49
4	Sergio Perez (MEX)	Red Bull-Honda	+1m02.306s		M n, H n, M u	4	Norris	1m25.746s	+2.550s	51
5	Esteban Ocon (FRA)	Alpine-Renault	+1m20.570s		Su, Hn	5	Russell	1m25.768s	+2.572s	55
6	Lance Stroll (CAN)	Aston Martin-Mercedes	+1m21.274s		M n, H n	6	Raikkonen	1m26.358s	+3.162s	53
7	Carlos Sainz Jr (ESP)	Ferrari	+1m21.911s		M u, H n	7	Vettel	1m26.434s	+3.238s	53
8	Charles Leclerc (MCO)	Ferrari	+1m23.126s		M n, H n	8	Leclerc	1m26.555s	+3.359s	46
9	Lando Norris (GBR)	McLaren-Mercedes	-1lap/+0.715s		Su, Hn, Mn	9	Sainz	1m26.570s	+3.374s	46
10	Sebastian Vettel (DEU)	Aston Martin-Mercedes	-1lap/+5.596s		S u, M n	10	Alonso	1m26.682s	+3.486s	48
11	Pierre Gasly (FRA)	AlphaTauri-Honda	-1lap/+11.189s		S u, M u, M u	11	Gasly	1m27.019s	+3.823s	46
12	Daniel Ricciardo (AUS)	McLaren-Mercedes	-1lap/+33.600s		M n, H n	12	Tsunoda	1m27.043s	+3.847s	50
13	Yuki Tsunoda (JPN)	AlphaTauri-Honda	-1 lap/+33.926s		Su, Mn, Hn	13	Ocon	1m27.061s	+3.865s	46
14	Kimi Raikkonen (FIN)	Alfa Romeo-Ferrari	-1 lap/+36.735s		Sn, Mn, Hn	14	Ricciardo	1m27.198s	+4.002s	50
15	Antonio Giovinazzi (ITA)	Alfa Romeo-Ferrari	-1lap/+1m01.143s		S n, M n, M n	15	Bottas	1m27.246s	+4.050s	39
16	Mick Schumacher (DEU)	Haas-Ferrari	-1lap/+1m02.721s		S u, M u	16	Mazepin	1m27.340s	+4.144s	55
17	George Russell (GBR)	Williams-Mercedes	-2laps/+18.038s		Sn, Hn, Su	17	Stroll	1m27.356s	+4.160s	44
18	Nikita Mazepin (RUS)	Haas-Ferrari	-2laps/+40.385s		M n, S u	18	Giovinazzi	1m27.823s	+4.627s	40
R	Nicholas Latifi (CAN)	Williams-Mercedes	50 laps-puncture		Sn, Hn	19	Schumacher	1m28.412s	+5.216s	46
R	Valtteri Bottas (FIN)	Mercedes	48 laps-puncture		Mu, Hn	20	Latifi	1m28.732s	+5.536s	44

WEATHER Night, clear, air 26C track 28-30C

WINNER'S AVERAGE SPEED 135.342mph FASTEST LAP AVERAGE SPEED 144.655mph

TYRES

KEY: H - Hard M - Medium S - Soft I - Intermediate W - Wet n - New set u - Used set



RACE BRIEFING

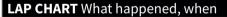
GRID PENALTIES BOTTAS Three-place penalty and one licence point for failing to respect single yellow flag VERSTAPPEN Five-place penalty, best time deleted and two licence points for failing to respect double yellow flags

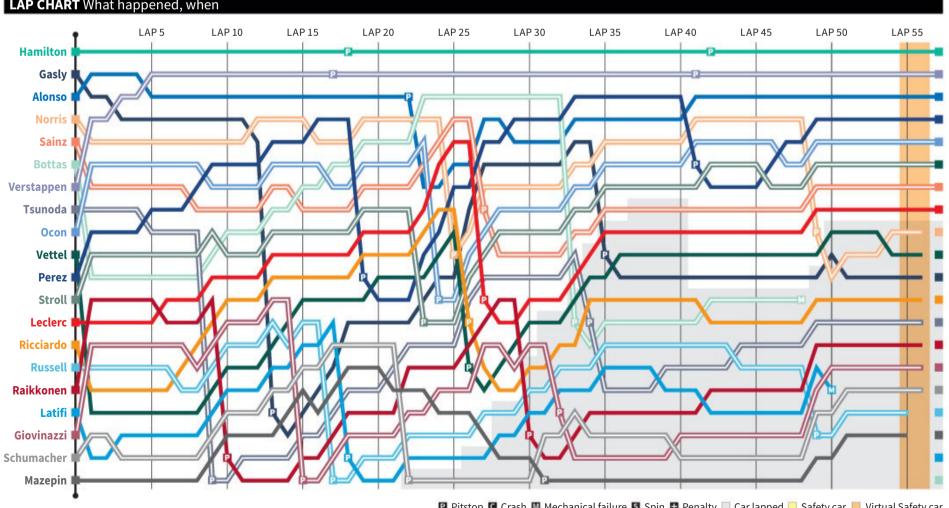
Days between Alonso's 97th F1 podium and 98th

STAT

Number of F1 podiums Hamilton has scored, 25 clear of Michael Schumacher

STAT





😰 Pitstop 🖸 Crash 🖾 Mechanical failure 🗟 Spin 📱 Penalty 📃 Car lapped 📃 Safety car 📕 Virtual Safety car

25 NOVEMBER 2021 AUTOSPORT.COM 27

HAMILTON AND ALONSO ARE THE TOP SCORERS IN QATAR

Mercedes' world champion was in a league of his own out front, while Alpine's veteran delivered an emphatic reminder of his class

ALEX KALINAUCKAS

MERCEDES



Started **1st**——Result **1st**

Completely dominant from qualifying onwards. Made sure to avoid being caught out at the start by covering off Gasly, then disappeared. Was smart to mostly avoid clattering kerbs and risk a puncture, which suggests he could have been even further ahead.

ASTON MARTIN



-Result **R**

Started 6th

Would have been marked down anyway because Mercedes had the pace to prevent Verstappen qualifying second, but also loses out here for not noticing the Q3 yellow flag. Insufficient tyre temperature on the mediums led to his slow getaway, but he rallied from 11th with a series of passes.

RED BULL



Started 11th — Result 4th

His score is mainly due to his Q2 exit, where sub-par tyre prep meant he struggled with temperatures. Raced well but had his life made harder by a two-stopper, which VSC ruined. But had he qualified near Verstappen he most likely wouldn't have been beaten home by an Alpine.

ALPINE



Started **3rd** — Result **3rd**





Started 9th — Result 5th

Sliding wide in

McLAREN



Started 14th – Result 12th

Put Q2 exit and lowly grid spot compared to Norris down to

not being fast enough on one-lap pace. In the race, couldn't see his Turn 1 braking reference in the pack and lifted too early, so got swamped by Russell and the Alfas. Worked his way back from there, mostly while fuel saving.

FERRARI



Started 13th — Result 8th

Poor qualifying



Pleased with qualifying pace but got beaten

LANDO NORRIS

Started 4th — Result 9th

by an AlphaTauri and Alpine. Defended firmly against Sainz at Turn 1, then made his way past Gasly with a DRS-assisted pass just before the Frenchman pitted. Ran deep and was making a onestopper work nicely before his left-front let go without warning.

CARLOS SAINZ JR

Started 5th — Result 7th

Earns a high



SEBASTIAN VETTEL

Started **10th** – Result **10th**





Started 12th — Result 6th





MAX VERSTAPPEN Started 7th — Result 2nd

Can't score higher because of big Q3 error. Acknowledged he saw Gasly's stricken car, so no excuse for missing yellow flags too. Race was brilliant thanks to a great start and passes on Gasly and Alonso. Damaged his wing on Turns 14/15 kerbs but didn't think he'd have caught Hamilton anyway.



when Stroll didn't and was unfortunate with the Gasly yellow flags, which he wisely obeyed. At the start he fell off the road at Turn 1 behind Bottas, caught out by the track being dirtier than he expected. But he recovered a point superbly, with good pace in free air.

(where Vettel progressed) is mitigated by his excellent start and race. Benefited from team-mate's off, but did well to hang around the outside of Bottas at Turn 3. From there he made the one-stopper work, overcutting Tsunoda and undercutting Sainz.

brilliant all weekend. Getting through Q1 on one set of softs was undone by Gasly's stoppage meaning he had to abort his second Q3 run, but first effort was good enough for fifth. Boldly passed Gasly at Turn 4 – a tricky spot – then made the tough one-stopper work.

Turn 1 late in Q3 meant he couldn't get up near Alonso's time. But gains credit here for his brilliant first three corners - he leapt past Tsunoda and Bottas off the line and edged around Sainz exiting Turn 3 – then making the one-stopper work. Failed defence against Perez has no impact.

put down to a chassis crack, but his own trip over the kerbs in Q1 caused that, so score comes down. Battled past Raikkonen, then chased Bottas before getting stuck behind Stroll. Enjoyed his pace in free air after stopping, which helped him close on Sainz towards the end.

score mainly for getting through Q2 on the mediums, which only the frontrunners could do. Was unfortunate that battle with Norris allowed Verstappen to nip through on the inside and Ocon got him at Turn 3 too. From there he drove with Ferrari's worries on tyre wear in mind.

QATAR GP RACE CENTRE



ALPHATAURI



Started 2nd — Result 11th

Earns high score for excellent qualifying result, even if there was a big element of fortune given his off at Turn 15 spoiled things for others behind. Did what he could from second at the start, then slipped off the road ahead of Verstappen and, after his pitstop, just lacked pace.



Started 8th—Result 13th

Needed two sets of soft tyres to escape Q1 but still reached Q3, where his four-place difference to Gasly brings his score down. Was hampered by a tear-off getting stuck in his rear wing early on, which meant his first stop was brought forwards. Struggled with tyre wear on the two-stop.

ALFA ROMEO



Started 16th - Result 14th

Didn't think Q1 elimination was unexpected given Alfa's struggles for pace in Qatar. Gained ground as others messed up the start and then enjoyed his race from there, particularly his passes on Latifi and the Haases. Was catching Tsunoda and Ricciardo at the end.

ANTONIO GIOVINAZZI

Started 18th - Result 15th

Was the second Alfa in qualifying when there was the chance for a 'Class C' runner to escape Q1. Did well at the start with a good launch and punchy run to Turn 2, gaining four places, but pace on the two-stopper was good enough only to finish 1.6s in front of Schumacher's one-stopping Haas.

HAAS



Started 20th - Result 18th

A decent effort considering everything that went wrong on

his car over the weekend. Massively adrift in qualifying but had just 17 laps of practice. In the race, only Bottas ran longer in first stint, Mazepin also feeling he was able to push on nicely throughout on the difficult one-stopper.



Started 19th-Result 16th

Was 0.1s behind Giovinazzi in qualifying and finished only barely behind him in the race despite a massive tyre offset. Pleased with his start and pace overall, feeling he could push all the way through even while onestopping. Might have been more careful rejoining after late off.

WILLIAMS

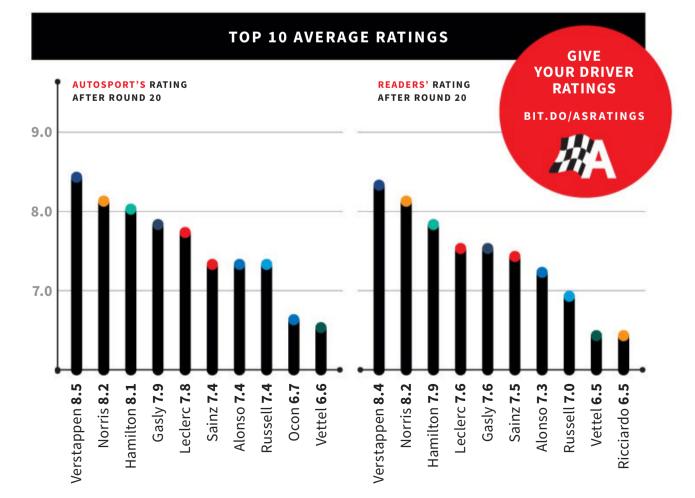


Started 17th -Result **R**





Did well to



together his best sectors when it mattered in Q1, where his team-mate progressed, he'd have beaten Raikkonen. In the race he dropped back sliding deep at Turn 1, then was on the one-stopper. Hit Turn 14 kerbs hard just before his left-front deflated, then ordered to park damaged car.

progress to Q2. Passed wayward Vettel at Turn 1 but got jumped by the Alfas. One-stopper got him back ahead of his rivals, but spent the rest of the race trying to defend against faster cars, which he said wore his tyres harder and that contributed to the puncture.

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<complex-block>

QUESTION

Who has the highest number of World Rally Championship victories?

- A | Colin McRae
- B | Sebastien Loeb
- C | Sebastien Ogier

TO ENTER

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Van Gisbergen takes title when rain stops play

AUSTRALIAN SUPERCARS SYDNEY MOTORSPORT PARK (AUS) 20-21 NOVEMBER ROUND 11/12

Shane van Gisbergen took a sensational race win on Saturday before sealing the 2021 Supercars title in a non-event on Sunday at Sydney Motorsport Park.

The Kiwi entered the final of four straight events at SMP with a hand already on the crown, then tightened his grip with a great drive in Saturday night's 155-mile opener. That was despite being forced to queue behind team-mate Jamie Whincup when everyone pitted under the safety car on lap seven, which dropped van Gisbergen from second to the back of the top 10. He lost more ground running the hard tyre in the middle stint, as Tickford Ford driver Cam Waters streaked out to a huge lead on the super-soft rubber.



But a move from the Triple Eight Holden squad to recycle van Gisbergen's first-stint super-softs for the run to the flag proved inspired, particularly when light rain in the closing stages made the faster rubber even more effective against the hard. Van Gisbergen and Whincup both ran down the hard-shod Waters in a thrilling finish.

The rain set in on Sunday, van Gisbergen qualifying second for the second race. But

the race was called off after a handful of laps behind the safety car.

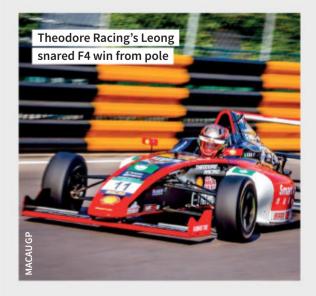
With no result declared, van Gisbergen's 349-point lead became unassailable heading to the season-ending Bathurst 1000. He also claimed the \$25,000 on offer for the Sydney Cup. "It sucks we couldn't put on a show," said van Gisbergen. "[But] it's supercool to win another title. I'm over the moon." ANDREW VAN LEEUWEN

Leong claims back-to-back Macau spoils in F4 contest

MACAU GRAND PRIX MACAU (PRC) 20-21 NOVEMBER

Charles Leong made it back-to-back wins when he secured gold in the 68th running of the Macau Grand Prix, for Chinese Formula 4 competitors.

From pole, the 2020 winner fended off a challenge from Andy Chang through the opening corners to secure the lead at Lisboa and edged away for a dominant win. His task was eased when Chang was given a drive-through penalty for



jumping the start, but the 2020 runnerup bagged the fastest lap as he reclaimed second. Chang had been forced to start the first race from the back after he had to restart his engine on the green-flag lap, but charged through to second.

A last-lap puncture deprived Ma Qing Hua (Lynk & Co) of honours in the Guia Race, team-mate Jason Zhang taking the win and the TCR Asia title. Ma limped home third but, after Lo Sze Ho's Hyundai i30N was excluded for turbo boost fluctuations, second was his consolation.

Darryl O'Young's was the story of the weekend. After three weeks of

WEEKEND WINNERS

AUSTRALIAN SUPERCARS SYDNEY MOTORSPORT PARK (AUS) Shane van Gisbergen

Triple Eight (Holden Commodore ZB)

MACAU GRAND PRIX

 MACAU (PRC)

 F4
 Charles Leong Theodore Racing

 GT CUP
 Darryl O'Young Craft Bamboo Racing (Mercedes-AMG GT3 Evo)

 GUIA
 Jason Zhang Lynk & Co Racing (Lynk & Co 03 TCR)

24H SERIES

SEBRING (USA) Michael Doppelmayr/Markus Winkelhock/ Elia Erhart/Sven Herberger Rutronik Racing (Audi R8 LMS)

BRAZILIAN STOCK CARS

quarantine, O'Young (Mercedes-AMG GT₃) ran second to Ye Hong Li's Porsche 911 GT₃-R in Saturday's eight-lap GT Cup stanza, only to hit oil deposited by the blown engine of Tang Ruo Bin's Lamborghini approaching Lisboa. After a huge impact and a near-roll, O'Young was classified second and hence started Sunday's race from the front row. He made a mega start, then hung on to win, despite spraying oil into the face of a disgruntled Ye for a popular victory. **MIKE HOLDER**

SANTA CRUZ (BRA)

Race 1 Thiago Camilo Ipiranga Racing (Toyota Corolla)Race 2 Ricardo Mauricio Eurofarma RC (Chevrolet Cruze)

EUROPEAN RALLY CHAMPIONSHIP GRAN CANARIA (ESP)

Alexey Lukyanuk/Alexey Arnautov Sainteloc Junior Team (Citroen C3 Rally2)



For full results visit motorsportstats.com

Rally titan Ogier bows out with eighth world title

The Frenchman brought the curtain down on his full-time WRC career by beating Toyota team-mate Elfyn Evans to the crown at Monza

TOM HOWARD

PHOTOGRAPHY McKLEIN



any sequels fail to live up to their billing, but Sebastien Ogier versus Elfyn Evans for the World which made Rally Monza a fairytale finish befitting a movie. The fact that Ogier is expected to appear in selected WRC

Rally Championship title at Rally Monza was a box-office hit. Almost 12 months ago, Evans suffered the heartbreak of crashing out in the snowy Italian hills to hand Ogier the 2020 crown. And, while the ultimate outcome was similar, this second instalment delivered one of the best duels in recent years. Ogier and Evans went toe to toe in a relentless three-day, 16-stage battle, where the lead swapped six times, the margin between the Toyota team-mates never more than 7.6 seconds in a thrilling no-holds-barred fight for victory. While many would have welcomed Evans upsetting the odds to become the first British WRC champion since the late Richard Burns in 2001, few would begrudge Ogier edging Evans by 7.3s in Italy to lift an eighth world title at the end of his glittering full-time career in the WRC. Rarely do elite athletes bow out on such a high, rallies next year ensured that last weekend was an *au revoir* rather than an *adieu*, but it did mark the end of an era of dominance, stretching back to his first title in 2013 for Volkswagen. Only once in the past nine seasons (Ott Tanak in 2019) has he been beaten to the crown. It also signified the end of one of motorsport's greatest partnerships, because Ogier's trusty co-driver Julien Ingrassia is retiring for good. The tooth-and-nail fight between Ogier and Evans for fractions of seconds through narrow, twisty mountain roads and stages using Monza's famous race track and historic banking was a perfect sign-off for the outgoing generation of WRC beasts, after a five-year period that earned them a place in history alongside the infamous Group B specials of the 1980s. Next year the WRC is set for a new hybrid Rally1 future that

WRC season finale played out on stages featuring the Monza circuit's historic banking

promises to bring its own brand of excitement. The build-up was dominated by the championship showdown playing out in the backdrop of the impending semi-retirement of arguably the greatest rally driver of all time. Ogier was refusing to let the emotions of the occasion creep in, and was using the WRC title fight as a distraction. Likewise, Evans knew he needed his team-mate to slip up to stand a chance of overhauling the 17-point gap. Ogier was indeed focused coming out of the traps fast on Friday, while equally Evans was most definitely at his best. The pair were given the opportunity to slug it out thanks to team-mate Kalle Rovanpera sacrificing his rally to play wingman, driving conservatively to ensure that Toyota picked up points to secure the manufacturers' title should drama strike the title contenders. First blood went to Ogier, who won three of Friday's four morning stages held on the challenging but beautiful ribbons of asphalt in

"The tooth-and-nail fight was a perfect sign-off for the outgoing generation of WRC beasts"

the Bergamo hills. Evans kept in touch but found himself 6.5s adrift, and the morning loop ended with stage four being redflagged and cancelled after a handful of passes to allow medical crews to attend to injured spectators, following an incident understood to have not involved a competitor.

The loop did halt the M-Sport Ford of Adrien Fourmaux, whose soft/hard-tyre gamble on the damp roads resulted in a slow roll after running wide and clipping a bank. The Fiesta eventually came to rest perched on a barrier facing rearwards towards a steep drop. >>>



NO ADS. JUST MORE PERFORMANCE





He would return to action on Saturday. A fast-starting Oliver Solberg came seriously close to a similar accident when he ran millimetres from a wall, prompting a trademark "oi,oi,oi,oi,oi, that was very lucky" on the radio. It was the only slight mark on an otherwise impressive start that shot the Swede into fifth, challenging his more experienced Hyundai team-mates.

The return to the Monza circuit for three stages — two in the afternoon before a blast in the dark — was where Evans hit back. He won stage five and, by successfully navigating the circuit asphalt, historic banking and gravel service roads, turned the deficit into a 1.4s lead after stage seven. "We need more of the same from us, there's not a lot more we can do," he mused. Ogier, who dropped time due to a brake issue, refused to be drawn into the fight. "The only danger is myself really, I just need to focus on my drive," he stated. "It's not a fight I need to take on anyway."

The Hyundai of Thierry Neuville had won stage six to break Toyota's stranglehold of stage wins and maintain third spot,

For the second year in a row Evans missed out





"The fight stepped up another notch, the lead changing hands five times across six stages"

21.5s adrift of leader Evans, while stablemate Dani Sordo, in fourth, mastered Monza in the dark to claim stage seven. Solberg, partnered with his fourth co-driver of 2021 in the form of Elliott Edmondson, staked a claim for driver of the day by setting top-five times in six of the seven stages to maintain fifth overall. "The Toyota guys are in a different league fighting for championships and taking huge risks, but I'm keeping up with the top Hyundai guys, so I'm very happy," he smiled.

Takamoto Katsuta, Gus Greensmith, fresh from signing a new deal with M-Sport for 2022, and Teemu Suninen, standing in at Hyundai for 2019 world champion Tanak due to a family issue, held sixth through to eighth, with Rovanpera ninth.

If Friday was the appetiser, then Saturday's 108km of action

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was definitely the main course as the Ogier/Evans fight for victory stepped up another notch. Incredibly, the lead changed hands five times across six stages. It was deja vu as Ogier starred on the morning mountain stages, immediately taking the lead back from Evans on the day's first test. Evans issued a response on stage nine, the longest of the rally, to edge 2.3s ahead.

While the scrap for the lead was simmering, Neuville's podium hopes boiled over. After winning the day's first stage, he found the barriers on the next, just 0.5km in, when cold tyres appeared to catch the Belgian out on a long left-hander. Amazingly, the battered and bruised Hyundai soldiered on showing no drop in pace, despite a gaping hole in its front. "I did some set-up changes before the stage and with the tyres not 100% warm I started to slide," explained Neuville. "I was so close to making the corner »

25 NOVEMBER 2021 AUTOSPORT.COM 35

but I didn't." Sordo inherited third, while Neuville ended the morning fourth.

Back at the front, Ogier muscled his way back into the lead, winning two stages on the bounce to hold a 5.2s lead over Evans into the afternoon. The lead swapping continued when the crews tackled two more stages at Monza in the evening. Evans repeated his Friday circuit form to win stage 12 and take a slender 0.3s lead over Ogier, but this was short-lived when the Frenchman returned serve to pip his title rival by 0.8s on the night stage, leaving the pair split by a tantalising half a second heading into Sunday's three Monza stages.

Suninen climbed to seventh in the only other position change, benefiting from increasing confidence in the i20 and Greensmith not being able to use his brakes to full capacity.

Ogier admitted he'd never known a rally lead to fluctuate so much, but insisted he was not concerned by the fight for

"Did we win the rally or not? In all the emotion, I didn't even listen to the radio"

the win. "It's crazy," he said. "I don't really focus on this fight [for the lead] as it would be a mistake for me, but I need to focus on my performance and reach the end and reach the title." Evans, however, wasn't buying Ogier's claims: "Let's say, he's not cruising to win the championship the way he's driving."

The temple of speed could so easily have turned the title tide in Evans's favour on the final day's first stage. Ogier glanced a concrete barrier, which was marking out a chicane on the banking, with his front-right, but luckily it didn't cause significant damage. "Luck is part of the sport," he shrugged. "I just glanced this barrier, and a few millimetres in then it's an impact and it breaks the wheel and minimum it's a puncture. I was quite relieved to see there was no puncture."

Luck deserted Evans on the next stage when he locked up and ran wide, clipping a bale while stalling his Yaris. It was effectively game over for the win and title after dropping 7.1s to Ogier, who elected to drive safely after his brush with the concrete.

For one last time, Ogier notched up a world title in style, recording a 54th career victory. Cue an explosion of emotions from Ogier and Ingrassia, who were so overcome that they



initially were unsure if they had won the rally, before jumping onto the roof of the Yaris to celebrate in front of a gathering crowd. "Did we win the rally or not?" exclaimed Ogier. "In all the emotion, I didn't even listen to the radio. I don't know what to say — it's amazing. This guy [Ingrassia] is a real legend."

Evans was again the bridesmaid, but should leave Monza proud to have pushed Ogier so hard for another season. "I think it's an OK season," he said. "I've given a lot of energy into it and I don't think I could have given an awful lot more."

Sordo held on to claim the final podium position from Neuville, who won all three of Sunday's stages, while Solberg netted a career-best WRC result in fifth in only his fourth top-flight outing. A wild spin followed by heavy contact with concrete barriers on the penultimate stage dropped Katsuta to seventh behind Suninen, with Greensmith eighth. With the manufacturers' title secured, the shackles were released on Rovanpera, who allowed himself to let loose with a series of celebration donuts on the final stage that he jokingly blamed on a "problem with his pacenotes".

But the day belonged to Ogier and Ingrassia, who will be remembered as perhaps the finest duo in WRC history. *#*





OGIER KNOWS WHEN IT'S RIGHT TO CALL TIME



Knowing the right time to end a full-time career is not an exact science, but Sebastien Ogier has no regrets in bowing out with an eighth World Rally Championship title. Ogier's Rally Monza victory sparked rare emotional scenes from the Frenchman, who has scored 54 WRC wins and notched up eight world titles with Volkswagen, M-Sport Ford and Toyota. They were all achieved alongside retiring co-driver Julien Ingrassia, who shed a tear as they crossed the finish line before Ogier presented him with a special crash helmet to commemorate their 16-year partnership.

While Ogier is expected to return with Toyota for at least one rally next year in Monte Carlo, the 37-year-old stands by his call to step back to spend more time with his family. "It's hard to put words on this kind of day in terms of emotions," he said. "There is a lot of joy but there is a bit of sadness – more than a little bit actually. We know this is the end of this fantastic journey and Julien has been a huge part of this successful story, so for sure, like I told him across the finish line, I'm going to miss him.

"Every good thing has an end in life, and I'm not sad at any point about this decision that I have taken, but it feels completely right to do this right now. The way I do it today by stopping but not completely and remain with the

RESULTS ROUND 12/12, RALLY MONZA (ITA), 19-21 NOVEMBER

POS	DRIVER / CO-DRIVER	TEAM / CAR	TIME
1	Sebastien Ogier (FRA) Julien Ingrassia (FRA)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	2h39m08.6s
2	Elfyn Evans (GBR) Scott Martin (GBR)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	+7.3s
3	Dani Sordo (ESP) Candido Carrera (ESP)	Hyundai Shell Mobis WRT / Hyundai i 20 Coupe WRC	+21.3s
4	Thierry Neuville (BEL) Martijn Wydaeghe (BEL)	Hyundai Shell Mobis WRT / Hyundai i 20 Coupe WRC	+32.0s
5	Oliver Solberg (SWE) Elliott Edmondson (GBR)	Hyundai 2C Competition / Hyundai i20 Coupe WRC	+1m32.0s
6	Teemu Suninen (FIN) Mikko Markkula (FIN)	Hyundai Shell Mobis WRT / Hyundai i 20 Coupe WRC	+2m22.6s
7	Takamoto Katsuta (JPN) Aaron Johnston (GBR)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	+2m34.5s
8	Gus Greensmith (GBR) Jonas Andersson (SWE)	M-Sport Ford WRT / Ford Fiesta WRC	+2m50.2s
9	Kalle Rovanpera (FIN) Jonne Halttunen (FIN)	Toyota Gazoo Racing WRT / Toyota Yaris WRC	+4m49.6s
10	Andrea Crugnola (ITA) Pietro Elia Ometto (ITA)	Hyundai i20 N Rally2	+9m06.9s
отн	ERS		

55 Adrien Fourmaux (FRA) Alexandre Coria (FRA) M-Sport Ford WRT / Ford Fiesta WRC

+51m32.9s

			2
STAGE TIMES STAGE	FASTEST	LEADER	SECOND
SS1 Gerosa 1 (6.81 miles)	Ogier 6m42.8s	Ogier	Evans+3.6s
SS2 Costa Valle Imagna 1 (13.74 miles)	Evans 12m59.0s	Ogier	Evans+3.5s
SS3 Gerosa 2 (6.81 miles)	Ogier6m35.3s	Ogier	Evans+5.6s
SS4 Costa Valle Imagna 2 (13.74 miles)	Ogier 12m48.0s	Ogier	Evans+6.5s
SS5 Cinturato 1 (9.00 miles)	Evans9m51.0s	Ogier	Evans+0.8s
SS6 Cinturato 2 (9.00 miles)	Neuville 9m39.8s	Evans	Ogier+1.3s
SS7 Grand Prix 1 (6.39 miles)	Sordo 5m18.7s	Evans	Ogier+1.4s
SS8 San Fermo 1 (9.20 miles)	Neuville9m15.4s	Ogier	Evans+1.5s
SS9 Selvino 1 (15.49 miles)	Evans 16m12.3s	Evans	Ogier+2.3s
SS10 San Fermo 2 (9.20 miles)	Ogier9m11.1s	Ogier	Evans+1.1s
SS11 Selvino 2 (15.49 miles)	Ogier 16m07.6s	Ogier	Evans+5.2s
SS12 Sottozero 1 (8.94 miles)	Evans 9m10.9s	Evans	Ogier+0.3s
SS13 Sottozero 2 (8.94 miles)	Sordo 9m10.7s	Ogier	Evans+0.5s
SS14 Grand Prix 2 (6.39 miles)	Neuville 5m12.3s	Ogier	Evans+0.5s
SS15 Serraglio 1 (9.08 miles)	Neuville 10m10.1s	Ogier	Evans+7.6s
SS16 Serraglio 2 (powerstage) (9.08 miles)	Neuville 10m04.4s	Ogier	Evans+7.3s

DRIVERS' CHAMPIONSHIP 1 Ogier 230; 2 Evans 207; 3 Neuville 176; 4 Rovanpera 142; 5 Ott Tanak 128; 6 Sordo 81; 7 Katsuta 78; 8 Breen 76; 9 Greensmith 64; 10 Fourmaux 42.

MANUFACTURERS' CHAMPIONSHIP 1 Toyota Gazoo Racing WRT 520; 2 Hyundai Shell Mobis WRT 462;

team and do a few rallies maybe next year feels the right way at the moment, but right now I feel I would prefer to have a full break. Let's see what the future brings. I feel I need time for myself and to try to build some more motivation to do some more motorsport again." Reflecting on his career, Ogier, who is keen to explore sportscar racing in the future, admitted he couldn't pick out a favourite title from his eight championships. "In my eyes they are all the best, I cherish all of them," he added.

$3\,\textbf{M-Sport Ford WRT}\,199; 4\,\textbf{Hyundai}\,\textbf{2CCompetition}\,68.$



WORLD RALLY CHAMPIONSHIP SEASON REVIEW 9 DECEMBER ISSUE The full story of how Sebastien Ogier clinched his eighth world title, plus Autosport's top 10 WRC drivers ranked.



Richard Burns Top 10 drives

On a bitter-sweet anniversary, co-driver Robert Reid helps recall the best of Burns

DAVID EVANS

wo decades ago today, Richard Burns and Robert Reid conquered their Everest. Third place on the 2001 Rally GB allowed them to stand on top of the world and bask in the glory of being the best in the business. Four years on to the day, Burns lost his battle

with the astrocytoma that first appeared late in a 2003 World Rally Championship campaign that had the British pair looking odds-on for a second title in three years. Instead, Burns began a new fight that he had no chance of winning.

Reid was alongside Burns throughout his career and subsequent illness, and is perfectly placed to talk Autosport through 10 of the best for his driver and his mate.



RALLY OF WALES 1993

10

Even as a 22-year-old, Richard Burns had forged a close relationship with Prodrive. In 1992, he drove the Banbury-based team's development Group N Subaru Legacy RS in the British national series. If this feature had been about the best 11 rallies in Burns's career,

the 11th event would likely have been the 1992 Severn Valley. He won the mid-Welsh event outright despite still being something of a four-wheel-drive novice and giving away a significant power advantage to his rivals.

The following year his manager and friend David Williams sourced backing from Elonex and Prodrive to put Burns and Alister McRae into a pair of Group A Legacy RSs for the British Open Championship. The Rally of Wales was round one, and Burns dominated. "That was the start of a great year for Richard and me," says Reid. "It wasn't an easy one by any means. As well as Alister, Malcolm [Wilson] was running his own factory-specification Ford Escort Cosworth, and there were a number of good private drivers. "Everything clicked in Wales. Malcolm was close, but he had a problem with the wipers failing in the rain. We took a lot of time out of people in places like Dyfi and Dyfnant. The one stage where we struggled was Ystwyth. There were no maps in there and Richard was the sort of driver who really needed a lot of information about what was coming – his pacenotes were always incredibly detailed. "Great start for us, though, and we followed this up with wins on round two in Kielder and then on the Scottish a particularly satisfying one for me!" Burns became the youngest driver to win three British rounds on the bounce and would soon be the youngest champion too.



38 AUTOSPORT.COM 25 NOVEMBER 2021



RALLY FINLAND 1999



With its high-speed crests and blind jumps, Finland is the sort of place where a driver needs to serve his apprenticeship.

Even a local is expected to put down three or four Rally Finland starts before they seriously think about challenging so, when Burns and Reid did just that in a Prodrive Subaru Impreza in 1999, eyebrows were raised.

Ultimately, they finished second to team-mate and local hero Juha Kankkunen. But notice of Burns's massive speed and commitment was definitely served in Jyvaskyla in 1999.

Reid says: "This result was a bit of a mixed blessing for Richard and me. Naturally, we were pretty pleased to finish our second ever Finland just nine seconds off the win, but we were both frustrated that this one had got away.

"There was a little bit of needle in the team around that time. This was just a couple of weeks after Argentina, where Juha won despite being told to hold station with us in the lead. At the time, those things can get under your skin a little bit, but it just helped to teach us that Juha could be a wily old fox..."

PANAROUND STAGES 1991



It's the start of Burns's second season in the sport. Spying real potential in the young Englishman, Reid has decided to join RB for his second year in the

Peugeot Challenge. This time around, it's the international-status series for Burns. This step up means higher-profile events where the competition is reckoned to be



closer fought among the more experienced drivers in the popular one-make series.

The result is, however, the same: more domination from Burns. His speed in the 205 GTi is exceptional, as is his meticulous preparation of the car.

"I'd been around the sport for a couple of years and been with some good drivers, but when the chance came to sit with Richard I was interested," says Reid. "It was obvious how driven and dedicated he was from the outset. The pace on the Panaround that year was incredible. And it just kept coming. We were going to rallies where neither of us had much experience and posting results which were quite disproportionate to the performance of the car we were in. "It was around this time that Richard was introduced to Prodrive. A highlight not long after the Panaround was his first time out in a four-wheel-drive rally car, when we finished third on the Border Counties

Rally in Scotland in a Group N Legacy.

That first year together was great – and it was the Panaround where I really felt the future was looking good."

Burns's Panaround win was the start of a dominant year in the Peugeot Challenge. The culmination of the season was a prize drive on the RAC Rally in a works Peugeot 309 GTI, where he won his class and finished 16th overall.

RAC RALLY 1995

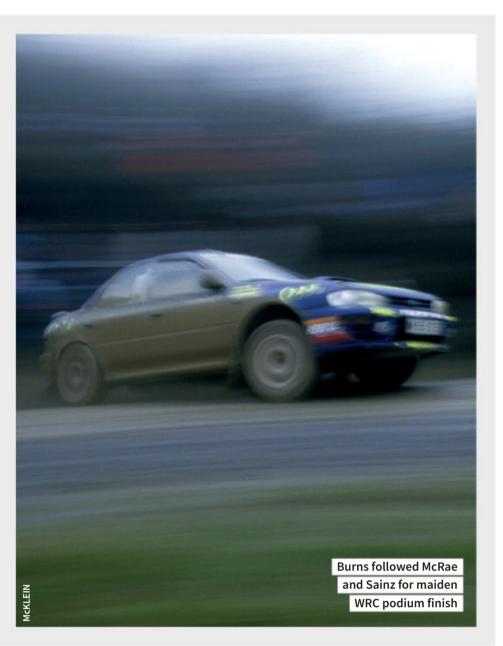
With the spotlight firmly on his title-chasing colleagues Colin McRae and Carlos Sainz, Burns was able to go into the final round of the 1995 season relatively untroubled by the glare of the media spotlight – the perfect environment to land a maiden WRC podium.

Burns's performance in following McRae and Sainz home on the RAC Rally ensured a podium lock-out to help Subaru seal its first ever manufacturers' world championship. Burns celebrated by promptly heading to Mitsubishi.

"That was a special one," says Reid. "You don't forget your first podium in the WRC, especially not when it comes at home. Once we got into the woods, it was a fairly straightforward event for us, but I do remember a small panic on the Sunday spectator stages. We damaged the steering in the first stage, then struggled through Chatsworth and managed to get the thing fixed at the side of the road. Fortunately we didn't have far to go to service.

"Once we got over that drama, Richard was able to drive in a really nice, controlled way to bring the car home third. The team was, as you could imagine, delighted. And, yes, I do have vague recollection of a pretty good party in Chester that night...

"It was a funny position for me really. I was Richard's co-driver, but I was a mate to them both - I'd been at Colin's 18th and 21st birthday parties and we'd known each other for a long time. As time passed, the media made plenty out of this 'Battle of the Brits', but the reality was quite different. We all got on well."





RALLY NEW ZEALAND 1996



The transfer to Mitsubishi for the 1996 season was a move many hadn't seen coming, but Burns knew that Subaru was Colin McRae's team – especially as the Scot had won the 1995 world title. There wouldn't be a full WRC campaign for 1996, but Andrew Cowan promised to keep Burns and Reid as busy as possible with his Ralliart Mitsubishi squad. One of the key markets for Mitsubishi was, understandably, Asia Pacific, which is how they found themselves at the wheel of a factory Mitsubishi Lancer Evo III in such farflung places as Thailand and Indonesia. New Zealand wasn't a counting round of the full WRC in 1996 (due to the FIA's policy of rotating events in the calendar), but it was still well attended. Subaru also had a keen interest in the Asia Pacific Rally Championship and sent Kenneth Eriksson to Auckland to maintain its domination of the North Island event.

That's not how it worked out. Burns drove brilliantly to land his first major win. Reid says: "It was Kenneth and Piero [Liatti] in Subarus that we beat there. We'd done the event a couple of times before, but retired both times. That win was a real highlight of the season and our careers to that point. The party was pretty good too - we did one Sunday night party in Auckland, then flew over the international dateline and enjoyed a second Sunday party when we landed for a holiday in Hawaii!"

AUSTRALIA 2003

5

Three podiums — one of which was a win — from his previous four visits to Perth meant there was real optimism when Burns stepped off the plane in

Western Australia in 2003. Ultimately, the event delivered another top three, but it was an unremarkable event for the Brit.

He'd struggled to match the early speed of Peugeot team-mate Marcus Gronholm, but on the upside he returned to the northern hemisphere with a bigger gap than ever (seven points — don't forget this was in old money when a win was only worth 10) at the top of the table.

Was this one of Burns's best-ever rallies? No. Was it one of the most poignant? Certainly. Rally Australia 18 years ago was as close as he would come to a second world title. An astonishing seven podiums from the first 10 rounds ensured he remained in front for much of the season.

It was also the last time he and Reid would ever visit a WRC podium. Thereafter the results deteriorated for what were, at the time, unknown reasons. Everything became horribly clear as the season played out.

Reid says: "We'd had some great times in Australia. It was a place and an event that Richard and I both really enjoyed. The ball



bearing-type surface seriously handicapped the first car on the road and it was always an interesting challenge to find the best possible place [on the road].

"We'd gone to Australia in 2003 on the back of a third place in Finland. At the time, that third in Jyvaskyla had us all a bit bemused. We'd gone into the final stage in Mokkipera in second place, 1.8 seconds up on Petter Solberg. We came out and Petter had taken second, beating us in the stage by three seconds. That wasn't Richard. That sort of thing just didn't happen to him he was so good in those final-stage fights.

"At the time we didn't really think

anything of it. We did Australia, added a point or two to our lead, then came back to Europe for three consecutive asphalt rallies in Sanremo, Corsica and Catalunya. We really struggled and ended those three events with a bizarre accident in Spain.

"After the crash, Richard left for Barcelona where he was staying for the night. As he was getting in the car to go, I asked him about the debrief. For the first and only time ever, he told me he didn't want to do it. He asked me to let him know what happened.

"That wasn't Richard. A few days later we found out what was going on."

RALLY GB 1998

4

For the second year in succession, Burns locked horns with McRae at home. This time Colin's younger brother Alister joined Subaru for a one-off outing at home too, and was giving chase to Burns's Mitsubishi when he crashed heavily in St Gwynno on the final morning.

By that point Burns was well clear of everybody. He and McRae Sr had traded times and the top spot through the first two days before the Impreza WRC98's engine cried enough. When McRae Jr went to the trees as well, RB was left to nurse a near fourminute advantage from Ford's Juha Kankkunen. He did just that.

Reid says: "We didn't do Rally GB in 1996, it wasn't a full WRC round. When we came home with Mitsubishi in 1997, that was really the first time we'd had a good chance of winning the event. Everything was going well after an astonishing run from



Richard through the fog in Radnor — we caught and passed Didier Auriol! But then we lost the lead with a puncture. "The year later, Richard and I were determined to finish the job. Typically, Colin was really quick out of the blocks, but we were there with him. It was a good fight and it was actually a real shame when Colin's engine let go. Richard really wanted to beat him fair and square.

"Having said that, a small electronic issue and a jammed wheelnut on the final day were enough to keep us on our toes. By the time we got back to Cheltenham, we were pretty happy to see the finish!"

RALLY PORTUGAL 2000

3

The car codenamed the P2000 (it would ultimately become the Impreza WRC2000) was the Subaru that Burns had been waiting for. Christian Loriaux evolved David Lapworth's already exceptional work with previous

incarnations, and what emerged was a World Rally Car with the most incredible stability and traction.

Such was Prodrive's determination to keep its latest creation away from prying eyes that the team elected to contain the media's movement around the service park more than ever. That only served as further frustration when the full extent of the car's ability became obvious on its Portuguese debut. The record shows victory for Burns by 6.5 seconds from Marcus Gronholm. The reality is quite different. This was a whitewash from the blue and yellow machine.

Little wonder the P2000 was Burns's favourite car.

"The first time we tested the new car we were in Spain," says Reid. "We were back-to-backing it with the previous car. We went out and did our first run. It didn't feel anything special, but when I looked at the watch I was a bit lost for words.

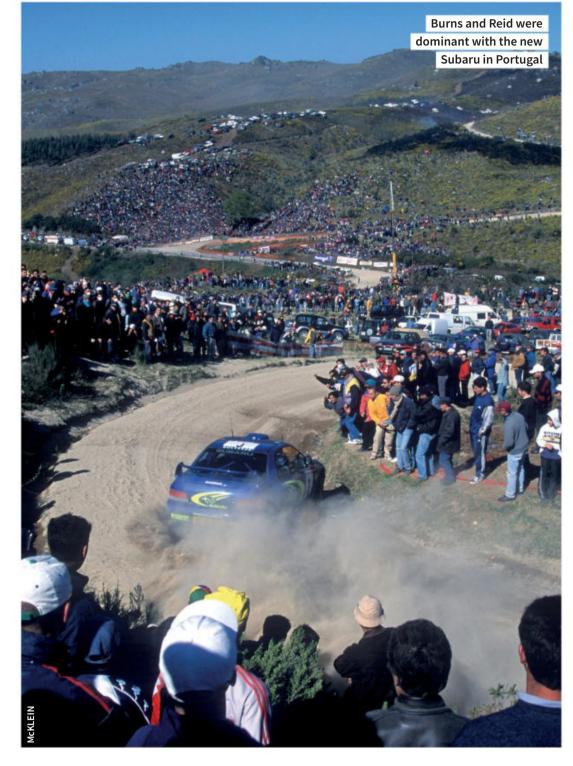
"'Well?' said Richard, wanting to know what the time was like. I told him the time. We were a second per kilometre faster than the old car.

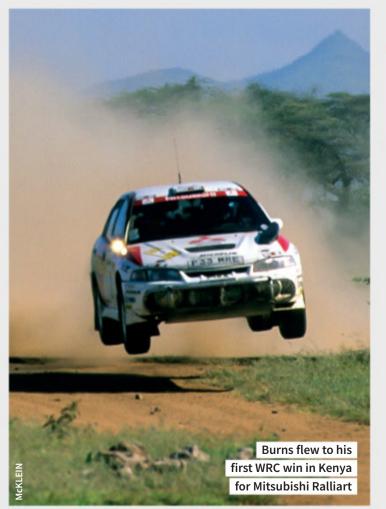
"'Nah,' he said. 'Let's do another run.' We did another run. Same result. It was incredible.

"It's rare that you go into a rally and just know you can win it. Richard and I knew we could. We had some powersteering issues early on and lost a 40s lead to Marcus, but it wasn't going to be a problem.

"Then we had a service barge drive into us on the motorway back to Porto. We got away with a bit of panel damage — it kept things interesting.

"A couple of stages to go and we were back in the lead. Some car that one..."





SAFARI RALLY 1998

2

Winning a Safari is not straightforward. Kenya requires a very different mindset from a European sprint-

type rally. Burns's early experience of guiding a Group N Subaru Impreza across the African plains laid the foundations for his maiden WRC win in 1998. Recognised as the Reading driver on his toes. He needn't have worried; Andrew Cowan's well-drilled Ralliart squad got the job done with time to spare.

Reid says: "The Safari suited Richard's temperament as a driver really well and, because of that, it was a fitting place to take our first win in the world championship. As was the case back in those days, Richard and I had spent a lot of time in Africa testing the car and on the recce, but by the time we got to the start we felt pretty confident. "I don't remember any major issues at all. There were a few retirements around us, but we just stuck to it and did our thing. I do remember the BBC complaining a wee bit at the amount of swearing Richard did as we crossed the finish line on the last stage. It was a moment worth celebrating! We'd won our first ever WRC round."

one of the sport's more mechanically astute and sympathetic drivers, he knew what was needed to get the Mitsubishi Carisma to the finish. Question was, could he do it quickly enough to challenge team-mate and former Safari winner Tommi Makinen? Yes, he could. Burns was firmly in the mix when the Finn departed early. From then on, it was about rally management. A late scare when a damaged sump needed replacing kept the team and

42 AUTOSPORT.COM 25 NOVEMBER 2021

RALLY GB 2001



The big one. A four-way fight for the 2001 world title involving Burns, Colin McRae, Tommi Makinen and Carlos Sainz. The Finn's early bath was an

immediate headline, but that was soon overtaken by the spectacular exit of McRae.

Always the long shot for the 2001 title, Sainz crashed out in Brechfa and left Burns in the box seat. Fourth place would suffice and in the end third did the trick.

"What can I say about this one?" recalls Reid. "Colin's accident early doors was a bit of a wake-up call. I remember getting to the end of the stage and Richard looked over and just said, 'F***ing hell!' I think we were running third or something then and we knew we had to stay in that position, but concentration wasn't all that easy. Seeing Colin's car, Richard missed his braking point for a junction just a bit further up the road. We slid backwards into a bank.

"After that, Richard was totally disciplined and did what was needed. Coming across the finish line on 25 November 2001, he grabbed my hand and raised it to the roof, shouting, 'You're the best in the world!' That was quite a moment and not one I'll ever forget."







HEAVEN FOR #7 AS TOYOTA OPENS HYPERCAR ERA

Mike Conway, Kamui Kobayashi and Jose Maria Lopez scored a second successive WEC title, as Toyota's new endurance racer went unbeaten

GARY WATKINS



oyota swept up the first brace of titles – drivers' and manufacturers' – at the start of a new era for the World Endurance Championship. It would be easy to say it waltzed to them as the only major manufacturer with a Le Mans Hypercar in a slim field. After all, it claimed 1-2 finishes in four rounds of the reduced six-event schedule. Yet for all its domination, the Japanese manufacturer could so easily have lost the biggest prize at the Le Mans 24 Hours.

No one outside Toyota Gazoo Racing knew during the French enduro quite how close the team was to missing out on a fourth straight victory. The world was aware that there were issues afflicting its pair of GR010 HYBRIDs, and that they were probably similar to the one that reared its head previous time out at Monza. TGR Europe technical director Pascal Vasselon's talk of "creative solutions" to overcome fuel pressure problems straight after the centrepiece WEC round only hinted at the drama that unfolded in the final third of the French enduro.

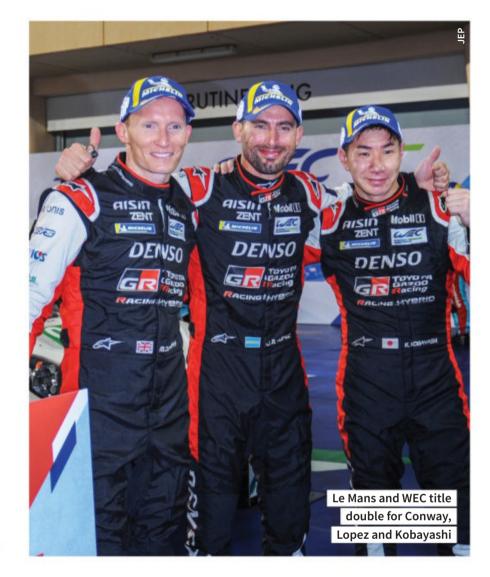
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MICHELIN

Indeed, the solutions thought up in the heat of battle were creative in the extreme, not least the demand to the drivers to turn the main fuel pump off and on under braking up to six times per lap. The software update that followed to bring all four of the lift pumps in the tank into play at once was less bizarre, but unprecedented nonetheless.



"NO ONE OUTSIDE OF TOYOTA KNEW DURING LE MANS HOW CLOSE THE TEAM WAS TO MISSING A FOURTH VICTORY"



HYPERCAR WEC CHAMPIONSHIP

POS	DRIVER	TEAM/CAR	1	2	3	4	5	6	PTS
1	Jose Maria Lopez (ARG) Kamui Kobayashi (JPN) Mike Conway (GBR)	Toyota Gazoo Racing Toyota GR010 HYBRID	3	2	1	1	1	2	173
2	Brendon Hartley (NZL) Kazuki Nakajima (JPN) Sebastien Buemi (CHE)	Toyota Gazoo Racing Toyota GR010 HYBRID	1	1	4	2	2	1	168
3	Andre Negrao (BRA) Matthieu Vaxiviere (FRA) Nicolas Lapierre (FRA)	Alpine Elf Matmut (Signatech) Alpine A480	2	3	2	3	3	3	128
4	Richard Westbrook (GBR) Romain Dumas (FRA)	Glickenhaus Racing Glickenhaus 007 LMH	-	4	3	5	-	-	53
5	Franck Mailleux (FRA)	Glickenhaus Racing Glickenhaus 007 LMH		-	3	4	-	-	39
6	Ryan Briscoe (AUS)	Glickenhaus Racing Glickenhaus 007 LMH	-	4	-	5	-	-	38
7	Pipo Derani (BRA) Olivier Pla (FRA)	Glickenhaus Racing Glickenhaus 007 LMH	-	-	R	4	-	-	24
8	Gustavo Menezes (USA)	Glickenhaus Racing Glickenhaus 007 LMH	-	-	R	-	-	-	0

Manufacturers 1 Toyota Gazoo Racing 206; 2 Alpine Elf Matmut 128; 3 Glickenhaus Racing 37.

The fuel issues definitely played a part in the championship battle between the two Toyota crews, and possibly even defined a contest that went the way of Le Mans winners Kamui Kobayashi, Mike Conway and Jose Maria Lopez.

Sebastien Buemi, Brendon Hartley and Kazuki Nakajima suffered more in the face of Toyota's fuel crisis than their team-mates. The championship-winning #7 GR010 had the problem at Monza in July during free practice, #8 in the race. A pitstop of nearly 50 minutes left #8 fourth in Hypercar, as the WEC's new top class is called. The car was running second to the sister Toyota when the problem hit, so Buemi and co lost at least six points. Arguably they lost 13, because the winning car spent a minute parked at the side of the track with an engine management glitch. The final margin in the championship battle was just five points.

Kobayashi, Conway and Lopez finally chalked up a Le Mans victory and would probably have won anyway given a clean run for the Toyotas. The #7 car had the slightest of edges on #8, which was always playing catch-up. Buemi was pushed into a spin by the Glickenhaus of Olivier Pla at the start and then had to bring the car to a halt to do a reboot. The fact that he and his co-drivers started experiencing the loss of fuel pressure before their team-mates was probably irrelevant.

Victory in the first leg of the Bahrain double-header closed out the season after the Fuji fixture was cancelled, and then the point **>>**



"ALPINE WAS THERE TO PICK UP THE PIECES FROM TOYOTA. ONLY THERE WERE NONE TO PICK UP"

for pole in the second effectively sealed a second straight title for Kobayashi, Conway and Lopez. Their team-mates shot themselves in the foot in Bahrain 1 with a set-up devised to counter understeer that ended up rooting the rear tyres.

The #7 Toyota was more often than not the quicker of the pair of four-wheel-drive GR010s. But the margin between them on a 100-lap average was in four of the races — Le Mans included measured in hundredths rather than tenths. The champions also took four poles to their pursuers' one. That ended up being decisive in the championship battle.





Fuel problems and the ECU glitch apart, the new Toyota LMH proved ultra-reliable through its maiden campaign. It needed to be because Toyota's only full-season rival, Alpine, had a proven package in the Gibson-powered ORECA LMP1 design that previously raced as the Rebellion R-13. The renamed Alpine A480 ended on the podium every time and finished only a minute off the lead in the first three races. Yet it only ended up ahead of one of the Toyotas at Spa in May when Kobayashi briefly beached #7 in the Bruxelles gravel and when the fuel problems struck #8 at Monza. In the spirit of a 'grandfathered' machine, the car driven by Nicolas Lapierre, Andre Negrao and Matthieu Vaxiviere was there, ready and waiting, to pick up the pieces if Toyota hit major problems. Only there were no real pieces to pick up.

The Alpine was never a true contender, even if it looked like it on occasion, especially first time out at Spa. The French machine led 47 of the 162 laps, yet it wasn't going to win save for major drama for Toyota. What wasn't totally clear at the start of the race was the car's inability to accommodate the full energy allocation allowed to it under the Hypercar Balance of Performance. LMH was conceived with 12-lap stints at Le Mans in mind, something the Alpine wasn't capable of courtesy of its LMP1 origins. The extra fuel stops that resulted, even after there was

ROUND BY ROUND

Spa 6 Hours

LMH Buemi/Hartley/Nakajima LMP2 Hanson/Albuquerque/Scherer GTE Pro Estre/Jani

GTE Am Perrodo/Nielsen/Rovera

Both Toyotas hit problems in what's described by the team as a "messy" debut for the GR010. The #8 wins despite losing 40s to pitlane infractions, while #7 spends a lap being pulled out of the gravel after Kobayashi locks up into the hairpin. Alpine would have been left clear to win had it been able to match its rivals' stint length.

Portimao 8 Hours

LMHBuemi/Hartley/NakajimaLMP2Da Costa/Davidson/GonzalezGTE ProPier Guidi/CaladoGTE AmFuoco/Sernagiotto/Lacorte

The Toyotas go onto different strategies during a safety car in the fifth hour. #7 appears to be the loser because it will need a splash, but a late FCY resets the race. Lopez comes out of the pits 3s behind Buemi, closes him down and is allowed to pass. He doesn't prove any quicker, so the positions are swapped back.

Monza 6 Hours

LMH	Kobayashi/Conway/Lopez
LMP2	Hanson/Albuquerque/Scherer
GTE Pro	Estre/Jani

GTE Am Perrodo/Nielsen/Rovera

Title-winning Toyota gets a first win on the board when the challenge from the sister car disappears with a fuel-pressure problem requiring a protracted pitstop. The victorious car loses a minute to an electronic glitch but the Alpine is too far behind to capitalise. Glickenhaus leads for a third of a lap before needing new front brakes.



an increase in capacity ahead of the 24 Hours, blunted its challenge.

The only other Hypercar entrant, American boutique marque Glickenhaus, turned up at three of the six races. It decided not to rush its Pipo-engined 007 LMH into service because once a car is homologated its specification is more or less fixed for five seasons. Outspoken team boss Jim Glickenhaus was always clear that he had little interest in taking his car to Asia, and skipped the Bahrain jaunt at the end of the season.

The oo7, developed in Italy by Podium Advanced Technologies, didn't disgrace itself on its debut in the Portimao 8 Hours in June. The car, conceived very much for Le Mans, moved closer to the pace at Monza where downforce was at less of a premium. Glickenhaus made it onto the Hypercar podium — in fourth overall behind the LMP2 winner — in Italy with Romain Dumas, Richard Westbrook and Franck Mailleux thanks to the #8 Toyota's woes. Mailleux, Pla and Pipo Derani were able to battle with the Alpine for a podium proper at Le Mans until the 20th hour when a Full Course Yellow fell badly for them.

The Glickenhaus Racing programme was a worthy one even with the understanding that Hypercar is a BoP formula. Yet its efforts highlighted the issues facing sportscar racing when a bevy of more big manufacturers with LMP2-based LMDh prototypes



arrive in 2023. The BoP between the 007s and the A480 appeared spot on at Le Mans, but the all-wheel-drive GR010s had a significant edge.

If the Toyotas didn't have a clear advantage when it was raining early on, courtesy of the rule that prevents four-wheel drive kicking in until the cars reach 150km/h (93mph) when not on slicks, they did when the cars changed to dry-weather rubber and that limit came down to 120km/h (75mph). The benefits of driven wheels at both ends were clear to see on a drying surface and on the green track, washed clean of rubber, that followed.

LMDh prototypes will have their motor generator units on the rear axle. The age-old problem of balancing two and four-wheel-drive machinery isn't going to go away no matter how much data the rulemakers have on their laptops. »

Le Mans 24 Hours

LMHKobayashi/Conway/LopezLMP2Frijns/Habsburg/MilesiGTE ProPier Guidi/Calado/LedogarGTE AmPerrodo/Nielsen/RoveraThe true drama at Le Mans is unseen by the
modest crowd let in this year. Toyota looks
to have it easy on the way to a 1-2 victory, but
without the resourcefulness of the team the
two cars might have finished down the order.Alpine comes out on top in a tight battle with
debutant Glickenhaus for the final podium spot.

Bahrain 6 Hours

LMH Kobayashi/Conway/Lopez LMP2 Frijns/Habsburg/Milesi GTE Pro Estre/Jani

GTE Am Keating/Fraga/Pereira

The drivers of the #7 Toyota put one hand on the end-of-season trophy with a third win of the season. Their team-mates struggle with oversteer after going for too pointy a car. Alpine can't benefit after an early throttle problem and the inferior stint length that is exacerbated by an engine glitch in the desert heat.

Bahrain 8 Hours

LMH	Buemi/Hartley/Nakajima
LMP2	Frijns/Habsburg/Milesi
GTE Pro	Pier Guidi/Calado
GTE Am	Nielsen/Perrodo/Rovera
Pole for K	Kobayashi means he and his team-mates
need only	y a classified finish to seal the title.
Buemi ge	ts four fresh tyres at the first stops and
leapfrogs	the sister car as #8 pushes on to equal
up the vio	ctory tally between the two Toyotas.
Alpine lea	ads early on before a gearbox problem
costs six	minutes, but fights back to third overall.
•	,

GTE PRO

GTE Pro became a two-way fight between Ferrari and Porsche in 2021 on the disappearance of Aston Martin. Yet the fight was no less intense for it, either on or off the track. It ended with two weekends of acrimony in Bahrain, and a few more days besides. Ferrari drivers James Calado and Alessandro Pier Guidi and their employer were only confirmed as drivers' and manufacturers' champions four days after the finale.

That was when Porsche opted not to follow through on an appeal after the dismissal of its protest of the race results following a late-race clash between Pier Guidi and Michael Christensen, who shared its lead entry with championship contenders Kevin Estre and Neel Jani. It wasn't the first unsuccessful protest of the week, however. Balance of Performance changes made before and in between the two Bahrain races were challenged by Ferrari.

Porsche's protest will be the one that's remembered because it concerned an on-track clash captured in multiple angles on TV. But Ferrari's was more important in understanding how the battle for GTE Pro honours played out through 2021. There was a realignment of the BoP ahead of the season resulting from a new blend of spec fuel from Total (now TotalEnergies). Ferrari argued that the new mix adversely affected its twin-turbo V8 in comparison with Porsche's normally aspirated flat-six.

A draconian BoP change outside the scope of the automatic system before the Bahrain races suggested that the WEC committee, made up of technical experts from the FIA and series promoter the Automobile Club de l'Ouest, believed Ferrari had been playing a long game and using the new fuel as a smokescreen.

There had been signs that the 488 was quicker than it was proving in the hands of works drivers Pier Guidi, Calado, Miguel Molina and Daniel Serra thanks to some indecent pace from some of the GTE Am runners. Those signs appeared to be confirmed at Le Mans when the factory Ferraris upped their game to take the class win with Pier Guidi, Calado and Come Ledogar. Multiple

"CALADO AND PIER GUIDI WERE ONLY CONFIRMED AS CHAMPIONS FOUR DAYS AFTER THE FINALE"



times, if you believe Porsche.

Porsche alleged that Ferrari was able to increase its pace twice over the course of the 24 Hours, a race that doesn't use the auto BoP, in a fierce battle with the mid-engined Chevrolet Corvette C8.Rs on their belated Le Mans debut. Porsche's second-generation 911 RSR also got quicker, but only in line with the track rubbering in, it argued.

A 25bhp reduction in horsepower for Bahrain 1 left the Ferrari 488 GTE Evos trailing home third and fourth behind the Porsches. The points advantage Pier Guidi and Calado had built up at Le Mans was all but eradicated, and then entirely wiped out when Estre claimed a fifth pole of the year for the finale.

The margin between Estre and Calado in qualifying for the eight-hour event was less than two tenths, closer than it had been all year. The reason? Ferrari had got some of its horsepower back for the second race, though that didn't stop it protesting. Understanding what was happening wasn't easy, not least because the FIA and the ACO didn't explain the rationale for either BoP change. It did insist that all BoP decisions, whether automatic



GTE	WEC CHAMPIONSHIP								
POS	DRIVER	TEAM/CAR	1	2	3	4	5	6	PTS
1	Alessandro Pier Guidi (ITA) James Calado (GBR)	AF Corse Ferrari 488 GTE Evo	2	1	2	1	3	1	177
2	Kevin Estre (FRA) Neel Jani (CHE)	Porsche GT Team (Manthey) Porsche 911 RSR	1	3	1	2	1	2	16
3	Gianmaria Bruni (ITA) Richard Lietz (AUT)	Porsche GT Team (Manthey) Porsche 911 RSR	4	4	3	3	2	4	11
4	Daniel Serra (BRA) Miguel Molina (ESP)	AF Corse Ferrari 488 GTE Evo	3	2	4	10	4	3	92
5	Michael Christensen (DNK)	Porsche GT Team (Manthey) Porsche 911 RSR	-	3	-	2	-	2	88
6	Frederic Makowiecki (FRA)	Porsche GT Team (Manthey) Porsche 911 RSR	-	4	-	3	-	4	66
7	Alessio Rovera (ITA) Francois Perrodo (FRA) Nicklas Nielsen (DNK)	AF Corse Ferrari 488 GTE Evo	5	15	5	4	9	5	62
8	Come Ledogar (FRA)	AF Corse Ferrari 488 GTE Evo	-	-	-	1	-	-	50
9	Ben Keating (USA) Dylan Pereira (LUX) Felipe Fraga (BRA)	TF Sport Aston Martin Vantage GTE	6	12	17	5	5	R	39.
10	Christian Ried (DEU) Jaxon Evans (NZL) Matt Campbell (AUS)	Dempsey-Proton Racing Porsche 911 RSR	R	R	9	7	6	6	34

Manufacturers 1 Ferrari 291; 2 Porsche 277.

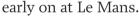
or "manual" (its word to explain what has been labelled a black ball change), were "data-driven".

The results of the first Bahrain race suggested some kind of revision to the BoP was needed. The data, however, resulted in a conveniently symmetrical 50% reduction in the hit Ferrari had initially received. The revised BoP allowed Ferrari, still down on power in comparison to Monza, to compete on level terms with Porsche over the course of eight thrilling hours. The battle swung one way and then the other, though Porsche looked to be on top as the race entered its closing stages after a creative mid-race strategy.

What followed Pier Guidi biffing Christensen into a spin as they battled for the lead with 11 minutes remaining was, quite frankly, a mess. Pier Guidi was ordered to give back the position, slowed and then saw the Porsche duck into the pits for what was a scheduled splash. The AF Corse-run car pitted next time around, came out ahead and didn't move over. It turned out that the order for it to do so had been rescinded.

Porsche's protest hinged on who was making the rapid-fire decisions: the stewards, as is dictated by FIA regulations when there is contact, or the race director? The stewards insisted that FIA rules had been adhered to. They were saying, in effect, "yes, it was us". Here again there was a marked lack of information from officialdom.

Bahrain wasn't the only cracking race in a GTE Pro class in which the second cars from both manufacturers were bit players. Monza was a thriller as the two championship-contending cars duked it out. The final margin of 30s in the Porsche's favour was only the result of a late roll of the dice by Ferrari. Estre and Jani dominated first time out at Spa. Porsche then got it wrong on tyre selection at the Portimao 8 Hours and made mistakes calling the conditions





LMP2

A rival team boss mused on seeing WRT's driver line-up that it would give the Belgian squad nowhere to hide in its debut season of LMP2. It would be unfair to name him, but his contention was based on a major misunderstanding of how a team that has won everything in the GT3 arena with Audi goes racing. WRT didn't arrive in the class believing all the big prizes would come its way, but it left no stone unturned as it strove to win them.

The line-up of Robin Frijns, Ferdinand Habsburg and Charles Milesi aboard the solo ORECA-Gibson 07 WRT fielded in the WEC was central to a successful campaign that yielded both the important prizes: the championship and class honours at Le Mans. It was the best P2 driver combination on paper and so it proved over the course of the season on the track. But a campaign that yielded three victories and a further podium was the product



of much more than the skill of its drivers.

If there were any doubts that WRT had got on top of a new discipline and car after its Le Mans win in August, they were dispelled in Bahrain. It was pretty much dominant over two races where it opted for a tyre strategy markedly different to those of its rivals. Nor should the resourcefulness of a team steeped in endurance racing – team boss Vincent Vosse and sporting director Thierry Tassin have five wins between them in the Spa 24 Hours – be overlooked. When the airjacks failed on the winning ORECA at Le Mans, the team brought out special inflatable pillows or balloons to lift the car. Raising the car in this manner damaged the rear diffuser, which »

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explains why

Tom Blomqvist in the best of the Jota ORECAs came within a few tenths of snatching the class victory.

Frijns, Habsburg and Milesi were, of course, lucky to win the class. The sister car in which Robert Kubica, Louis Deletraz and Yifei Ye won the European Le Mans Series title was on course for victory until it cut out a few hundred metres into the final lap. It turned out that fluid from a leaking drinks bottle had caused a short circuit. This was irrelevant in the championship battle, however: the second WRT car wasn't eligible for points as an additional entry.

Blomqvist and team-mates Stoffel Vandoorne and Sean Gelael failed to score a victory, though they came close at both Le Mans and the Algarve circuit. Their combined deficit to the winners across those two races was little more than five seconds. The 11 points they lost when the sister car driven by Antonio Felix da Costa nipped past late on to win in Portugal proved decisive in the championship battle, though there were probably too many mistakes across the season, a double penalty at Le Mans included, for them to have deservingly won the crown.

Da Costa and team-mates Anthony Davidson and Roberto Gonzalez ended up a close third in the second Jota entry. It was an impressive achievement given that the mandatory silver-rated driver in the car was Gonzalez, a 45-year-old with a day job and not a twenty-something straight off the single-seater ladder. Had they not been unclassified at Monza after an electronics problem, they would probably have ended up excruciatingly close to the title.

United Autosports' attempts to retain the crown in a year when the P2s were slowed to ensure they weren't quicker than the Hypercars went off the rails at Le Mans. Phil Hanson was leading the points at that stage with a pair of wins at Spa and Monza together with regular team-mates Filipe Albuquerque and Fabio Scherer. It all went wrong at Le Mans when an electrical problem left them as the last classified finisher in class. The team didn't get its title bid back on track in Bahrain after its ORECA went off the boil halfway through the first race and never came to the boil in the second. It finished fourth both times.

The new Pro-Am P2 sub-class for line-ups including a bronze driver was predictably won by Racing Team Nederland. It was





GTE AM ENDURANCE TROPHY

1 Rovera/Perrodo/Nielsen 150; 2 Keating/Pereira/Fraga 90.5; 3 Ried/Evans/Campbell 79; 4 Egidio Perfetti/Matteo Cairoli/Riccardo Pera (Team Project 1 Porsche 911 RSR) 78; 5 Antonio Fuoco/Giorgio Sernagiotto/Roberto Lacorte (Cetilar Racing Ferrari 488 GTE Evo) 75; 6 Francesco Castellacci/Giancarlo Fisichella/Thomas Flohr (AF Corse Ferrari 488 GTE Evo) 71; 7 Claudio Schiavoni (Iron Lynx Ferrari 488 GTE Evo) 62; 8 Augusto Farfus/Marcos Gomes/Paul Dalla Lana (Aston Martin Racing Aston Martin Vantage GTE) 58; 9 Andrew Watson/Satoshi Hoshino/Tomonobu Fujii (D'Station Racing Aston Martin Vantage GTE) 51; 10 Rahel Frey (Iron Lynx Ferrari 488 GTE Evo) 46.

predictable because the TDS Racing-run RTN squad was already a proven class frontrunner, winning at Fuji in 2019. Bronze-rated Frits van Eerd ended up winning the title alone after regular team-mates Giedo van der Garde and Job van Uitert were independently ruled out of the Algarve race following positive COVID tests. Van Eerd won three times with them and once without, when Nyck de Vries returned to the line-up and Paul-Loup Chatin was brought in.

GTE AM

Nicklas Nielsen and Francois Perrodo reprised their 2019-20 GTE Am crown with AF Corse. There were two differences between this season and last: the first was that Alessio Rovera joined them as the silver-rated driver in the line-up after Nielsen's upgrade to gold status mid-campaign last time; and the second was the manner of their victory. In 2019-20, Nielsen and Perrodo won two of eight races and this year they claimed four of six, Le Mans included.

Perrodo wasn't the fastest of the bronzes, but Rovera was probably the best silver and Nielsen always starred as he anchored the team's strategy. They also barely made a mistake between them.

A win for the Aston Martin Vantage GTE shared by Ben Keating, Felipe Fraga and Dylan Pereira in Bahrain 1 gave TF Sport an outside chance of making up for its near-miss in 2019-20. That disappeared when Keating clashed with the only other full-season Aston, the factory Prodrive-run entry, on the opening lap of the finale.

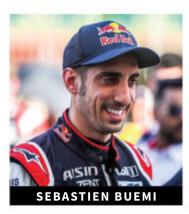
The other class winner was the AF-run Cetilar Ferrari of Antonio Fuoco, Giorgio Sernagiotto and Roberto Lacorte. The last-named impressed among the bronzes after stepping down from LMP2.

POS DRIVER

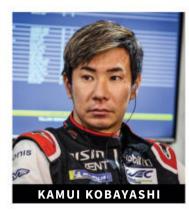
1	Charles Milesi (FRA) Ferdinand Habsburg (AUT) Robin Frijns (NLD)	Team WRT ORECA-Gibson 07	12	4	2	1	1	1	151
2	Sean Gelael (IDN) Stoffel Vandoorne (BEL) Tom Blomqvist (GBR)	Jota ORECA-Gibson 07	3	2	5	2	2	3	131
3	Anthony Davidson (GBR) Antonio Felix da Costa (PRT) Roberto Gonzalez (MEX)	Jota ORECA-Gibson 07	2	1	NC	8	3	2	123
4	Phil Hanson (GBR)	United Autosports ORECA-Gibson 07	1	3	1	18	4	4	107
5	Fabio Scherer (CHE) Filipe Albuquerque (PRT)	United Autosports ORECA-Gibson 07	1	-	1	18	4	4	84
6	Alex Brundle (GBR) Jakub Smiechowski (POL)	Inter Europol Competition ORECA-Gib 07	5	5	4	5	9	5	84
7	Renger van der Zande (NLD)	Inter Europol Competition ORECA-Gib 07	5	-	4	5	9	5	69
8	Frits van Eerd (NLD)	Racing Team Nederland (TDS) ORECA-Gib 07	4	10	3	11	5	6	67
9	Giedo van der Garde (NLD) Job van Uitert (NLD)	Racing Team Nederland (TDS) ORECA-Gib 07	4	10	-	11	5	6	52
10	Esteban Garcia (CHE) Norman Nato (FRA)	Realteam Racing (TDS) ORECA-Gibson 07	6	7	7	12	7	7	50

50 AUTOSPORT.COM 25 NOVEMBER 2021

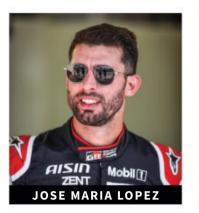
AUTOSPORT'S TOP FIVE LMH DRIVERS



Failed to secure a hat-trick of WEC titles, though that had nothing to do with his efforts at the wheel of the #8 Toyota. Across the six races, he was the fastest of the six drivers in the Japanese manufacturer's camp, though admittedly the margins were small. Take the Le Mans 24 Hours, for example. Using a 75-lap sample, he was 0.03s up on Kobayashi in the sister car; on the average of their best 50 laps, he was just 0.07s behind.



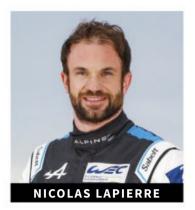
Was quick in the races and super-quick in qualifying. The Japanese's acknowledged one-lap pace meant he was handed the #7 Toyota for qualifying on four occasions, and crucially grabbed the pole and the point that went with it on three of them. His mistake at Spa didn't prove decisive in the title battle and was the result of a propensity of the GR010 to lock up its front brakes. He wasn't the only driver to get caught out by that.



Is seemingly still improving as a sportscar driver, which explains a higher ranking this season, his fourth with Toyota, than last. The Argentinian, now a five-time world champion, headed the averages of the Japanese manufacturer's six drivers at Algarve and wasn't far behind Kobayashi and Buemi at Le Mans. He was generally a tad quicker than Conway, though there normally wasn't a lot in it they were separated by 0.1s across the two Bahrain races.

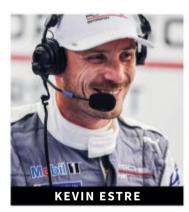


That he has dropped from second on this list after the 2019-20 season to fourth in 2021 has little to do with his own form. It's more down to that of his team-mates, particularly Kobayashi's heroics in qualifying. The Briton did what we've come to expect of him as he's matured into one of the world's top sportscar drivers: he never underperformed, didn't make a mistake and deservedly got a Le Mans win to his name after so many near-misses. At last!



Back in the top rank of the WEC after a long absence, the former Toyota driver proved that he can still compete at the highest level. That's despite nearing 40 and taking the first steps in team management with Cool Racing. Lapierre was more often than not the fastest of the drivers in the Alpine, sometimes by a significant margin. He was probably at his best through the varied conditions at Le Mans, on the way equalling his best overall result in the French enduro.

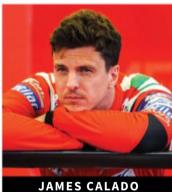
AUTOSPORT'S TOP FIVE GTE DRIVERS



The Frenchman tops these rankings for a third season in a row after a



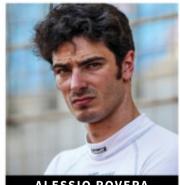
The stalwart Ferrari driver appears to be getting better with age:



The Briton and Pier Guidi added up to the best line-up in GTE Pro



The battle for GTE Pro honours was all about the lead cars from



ALESSIO ROVERA

The series newcomer was picked up as the new silver to drive the

year in which he was pivotal in Porsche's ultimately unsuccessful pursuit of the GTE Pro title. He could get more out of the second iteration of the mid-engined 911 RSR than any of his teammates – witness his five poles – and, when the chips were down, could pull a rabbit out of the hat in the races. His drive in the Bahrain finale to overhaul the leading Ferrari was breathtaking. 2021 has to be one of his best seasons ever. The remit of this table only covers the WEC where he was the star driver in the Prancing Horse stable. Nowhere was that more so than Le Mans on the way to a second class victory. The Bahrain 2 incident can't be viewed as a blot on his copybook. No one doubts him when he said it wasn't deliberate – and it won Ferrari two titles. in their fourth season together at the AF squad. The Italian ultimately made the headlines in the dying minutes in Bahrain and starred in the Monza shootout with Porsche, but Calado was an equal partner in their championship success. There was little between them on the way to the Le Mans victory that laid the foundations of their title glory. Ferrari and Porsche, but Molina was the pick of the drivers across the two manufacturers' second entries. He always had the measure of new full-time team-mate Serra in the #52 Ferrari, with the exception of Le Mans where the Brazilian starred. That was a rare race in which they looked well placed to mount a challenge until losing time with suspension failure. AF-run Ferrari that won the GTE Am crown in 2019-20. He made an immediate impact alongside bronze Perrodo and factory driver Nielsen, playing a key role in the retention of the crown. Rovera deserves a place here not just because he was the stand-out silver in the Am ranks, but also for stacking up well against Nielsen in his rookie year. His reward was a factory contract for 2022.

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SEASON REVIEW

CHADWICK'S SECOND TITLE POSES MORE QUESTIONS THAN ANSWERS

Jamie Chadwick fought off a strong challenge from Alice Powell to take her second W Series crown, but what next?

MEGAN WHITE



fter a COVID-induced year off, W Series was back with a bang in 2021, joining the Formula 1 support package to bring the all-female championship to an even bigger audience. Spearheading that charge was Jamie Chadwick, with one title under her

belt and in pursuit of another.

The 23-year-old succeeded in that mission, taking her second consecutive championship with four wins out of a possible eight after a season-long battle with fellow Brit Alice Powell.

Chadwick's charge to victory got off to a wobbly start, albeit one that was "mainly out of our control", finishing just sixth in a season opener in Austria dominated by her title rival. But she bounced back in the following race at the Red Bull Ring and finished on the podium in every subsequent weekend.

The Williams F1 development driver was disappointed to miss out on victory at a "special" Silverstone home race, in which Powell snatched the lead from Fabienne Wohlwend with minutes to go, but Chadwick was back in control at the Hungaroring, crossing the line more than 10 seconds clear and leaving the pair on two wins apiece.

The rivals entered the season finale double-header at Austin level on points, but problems for Powell in qualifying handed Chadwick the advantage to finally take the title with both hands. Two wins and a 27-point margin were the results. "The championship was always the aim and I feel like anything less, especially after the first year, I would have been disappointed with," says Chadwick. "But at the same time, it didn't feel like it was by any means handed on a plate, I really had to work for it. I think there's a mixed emotion of relief, happiness, joy, but also this feeling of what's next? I've ticked that box, now what's next? "So yeah, a really good feeling and really happy that we've achieved what I set out to achieve. But now, focus on where can we go from here."

Chadwick had to work hard for her second title, but she's unlikely to be back to chase a third crown

It was admittedly a "harder fought" season for Chadwick, who says she "felt like I was being pushed a lot more" with Powell bringing the fight at every race, trading the top of the standings at every turn as the pair tussled for the title. "In 2019, I was always ahead in the championship and I was »

REVIEW W SERIES



"I WAS PUSHED A LOT MORE. I HAD TO MAKE SURE I WAS AT THE TOP OF MY GAME"

able to kind of manage the gap to behind whereas this year, every week, it was kind of going one way or the other between Alice and me," Chadwick says. "One weekend, I'd be ahead, the next weekend she would be ahead.

"So going into the last event, first time I've ever been equal on points with someone, I felt like I was being pushed a lot more. It was nice having that sense and made me feel like I really had to make sure I was at the top of my game every weekend.

"I felt pressure in every weekend, because there's only eight rounds. You know that if you make a mistake, or if you have a bad weekend, then it can massively compromise your championship because there are so few. So yeah, I felt the pressure in every weekend. But it definitely came to a head at the last one."

So what's the answer to Chadwick's own question: what's next? Looking ahead to 2022, Chadwick says she is "unlikely" to return to the W Series and hopes to continue her progress in single-seaters, working out what the best options are. She admits FIA Formula 3

seats "get taken so quickly" and she has missed the post-season tests at Valencia, while the lack of W Series track time would put her on a back foot compared to those graduating from other series.

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		DRIVER	WINS	PTS			MP	
	1	Jamie Chadwick	4	159				
	2	Alice Powell	3	132				
	3	Emma Kimilainen	1	108				
	4	Nerea Marti	0	61				
	5	Sarah Moore	0	56				
	6	Fabienne Wohlwend	0	42				
	7							

Her 25 FIA superlicence points -15 of which were gained from her latest title – make her eligible to take part in F1 free practice with Williams, something she hopes could happen next year as discussions continue to create a "more integrated role".

The former Aston Martin Autosport BRDC Award finalist also recently took part in a World Endurance Championship rookie test with Richard Mille Racing in Bahrain, which she "really enjoyed" and says it's "something if I can and things allow that I'd love to get involved in at some point in the future". She was British GT4 champion (with Ross Gunn) back in 2015, and has Aston Martin GT3 experience. Driving in the 24 Hours of Le Mans is also a dream of hers, while competing in Extreme E has given her the rally bug, prompting an interest in the Dakar Rally.

Powell, on the other hand, says her season was "disappointing, in the end", although she says it was "still a good year". Having spent

HOW THE TITLE WAS WON

Jamie Chadwick's charge to her second W Series title got off to a wobbly start, when she finished sixth in a Red Bull Ring race dominated by Alice Powell. Chadwick started eighth after a cracked carbon pipe scuppered her qualifying, and fought her way back through the field after a second-lap shunt with Jess Hawkins dropped her to the



pole, fastest lap and a comfortable victory in perhaps the most dominant performance of the campaign. It put her a point ahead and the tussle continued for the rest of the season, with the pair taking every win bar Spa, courtesy of a stunning drive in the wet from Emma Kimilainen after a horrific qualifying shunt. Powell took victory at Zandvoort despite Chadwick's best efforts. The win put the pair level on points heading into the doubleheader season finale at Austin. But problems in practice and qualifying for Powell left her to start 10th for race one and, despite Powell's valiant charge to third, Chadwick's victory gave her the advantage.

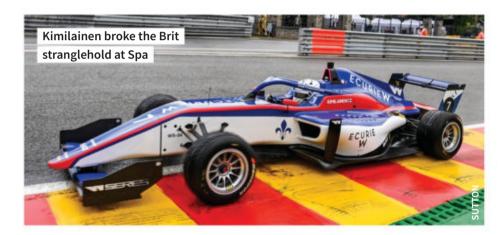
back of the pack. It left her on just eight points, with Powell taking the maximum 25.

But from the second race at the Red Bull Ring, Chadwick's form was impeccable. She led every session before taking the chequered flag 6.6 seconds ahead of Irina Sidorkova in a lights-toflag victory. Powell, meanwhile, started 12th after she was plagued by a "very frustrating" car issue throughout practice and qualifying, and finished the race eighth.

Powell took victory in the next round at Silverstone, both drivers' home race. She snatched the lead from Fabienne Wohlwend with five laps to go while Chadwick was left in third, 4s behind the winner. The result gave Powell a six-point advantage in the drivers' standings, with 54 to Chadwick's 48. But Chadwick was back in Hungary, taking

Chadwick headed into the last race 10 points ahead, and cruised from pole to take victory almost five seconds ahead of second-placed Abbi Pulling. She claimed the crown by 27 points in a title fight she admitted was tougher than 2019.





a year out of the car, she "didn't really have high expectations", but went on to take three wins and two other podium finishes.

"I hadn't driven a single-seater for a while," says the 28-year-old. "It was sort of a year out of racing in a single-seater, whereas others had quite a bit of time. Obviously that included Jamie, because she did the year in Formula Regional European in 2020.

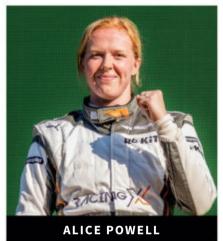
"Austria one was a great weekend for me. And then we thought, 'OK, yeah, maybe we can have a good season.' Austria two wasn't fantastic, but then Silverstone and onwards was fairly decent."

Powell admits that she knew the final weekend of the season would be difficult and that Chadwick would be strong, but says it was "probably the worst weekend of the year. It was really disappointing to not win the championship, but yeah, to be vice-champion — I still don't like saying it, though 'vicechampion' does probably sound a little bit better than saying 'finishing second' — it was still a good year."

AUTOSPORT'S TOP FIVE W SERIES DRIVERS



In a typically fast season, the dominant double champion finished on the podium in all but one race. As well as the points table, she topped most of the major stats: wins (four), poles (four) and laps led.



2 Came so close to lifting the title, winning three races and taking five podiums in all. Standout moments included a dominant lights-to-flag victory at the Red Bull Ring season opener and a punchy charge from 10th to the podium in the first Circuit of The Americas race.





B This series reserve took part in just four races but quickly impressed, finishing eighth on her debut at Silverstone. A stunning performance at the Austin doubleheader finale, where she took pole, led to her first podium and helped guarantee her a spot on next year's grid. One to watch in 2022.



Powell also took part in the WEC test, "really enjoying" not only driving an LMP2 machine but also experiencing the Bahrain International Circuit, where she had never driven before. Like Chadwick, she is unsure of her plans for next year, including whether or not she will return to W Series, but says there are "offers potentially on the table".

Whatever they do, both drivers owe much of their success to W Series, with Powell especially celebrating the doors it has opened for her, having spent several years away from racing prior to its inaugural campaign in 2019.

As for W Series itself, it enters 2022 bigger than ever. But with the prospect of losing its two biggest names, and with questions concerning upwards progression, where does it go from here? 3 After taking fifth in the points in a 2019 campaign derailed by a first-race injury, the Finn was consistently quick this year, finishing outside the top six just once. Her best result was an epic win at a wet Spa, crossing the line over eight seconds clear of second-placed Chadwick. **5** On her move up from Spanish F4, this rookie put in a solid set of performances to finish fourth in the standings, with her best finish third at the Hungaroring. She was one of only three drivers – along with Chadwick and Powell – to take points in every race. Expect more from the 19-year-old next year.

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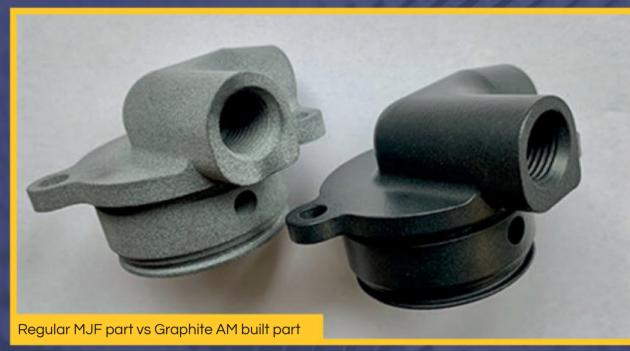
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DEADLY DRIVER by J.K. Kelly

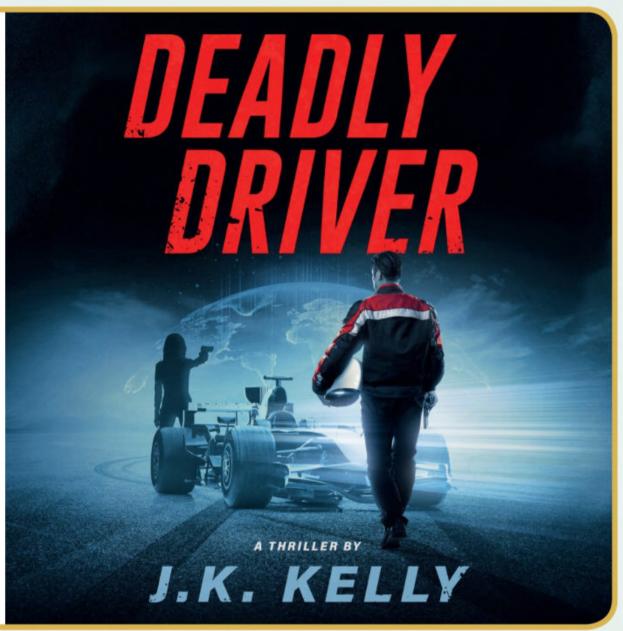
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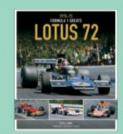




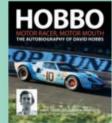
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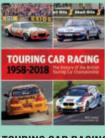
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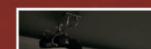
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GT4 SUPERCUP CHAMP SMALLEY CHOSEN AS PORSCHE GB JUNIOR

PORSCHE CARRERA CUP GB

New Ginetta GT4 Supercup champion Adam Smalley has been selected as the Porsche GB Junior for the next two years.

Smalley, who won the Ginetta Junior title in 2018, was one of four drivers to take part in the final shootout at Silverstone earlier this month, where the quartet undertook a range of driving, fitness and media assessments.

He faced stiff competition from British GT₄ champion Gus Burton, Porsche Sprint Challenge GB title winner Theo Edgerton and National Formula Ford 1600 frontrunner Alex Walker, but it was 20-year-old Smalley who impressed the judging panel the most to land the prestigious prize.

He will now receive £85,000 towards his budget for each of the 2022 and 2023 Porsche Carrera Cup GB seasons as well as a wealth of support and opportunities from the manufacturer. Smalley succeeds 2020 champion Harry King as the Junior, and each of the past four Juniors has now taken the title during their two years on the scheme.

A delighted Smalley admitted he did not expect to be chosen and, unlike other finalists, had never previously sampled the Porsche 911 GT₃ Cup car.

"I can't believe it – I didn't think I would win it at all, it was just a pleasure to be selected in the final four," he said. "I didn't test prior to the final and thought, 'I'm going to turn up to it, enjoy it as much as possible and show how I can progress as a driver.' It's



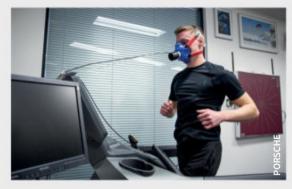


a once in a lifetime opportunity – I was a bit nervous but more excited.

"The car felt amazing and very quick! It was very different to what I'm used to and it was a fantastic feeling driving down the pitlane for the first time.

"I put everything on the table and was pretty happy with how I did. I'm very grateful for the opportunity -Iwould like to make the most of it and get out in the car as soon as possible."

Smalley is directly stepping into King's shoes, since he became the Porsche Junior on the back of winning the 2019 GT4 Supercup crown. "Hopefully I can



follow in his footsteps and win the [Carrera Cup] championship!" he added.

He says he will now spend the next few weeks "speaking to a lot of teams" as he makes plans for 2022. He is looking forward to the security of having a twoyear journey ahead of him, having only secured his place on the GT4 Supercup grid this year on the eve of the season.

"Previously, I've been going from year to year but, now I've got a two-year programme in place, it's a very good feeling," Smalley added. "It ensures I can maximise it and give it my best shot." **STEPHEN LICKORISH**

Fiesta Junior ace in GT Cup move



GT CUP

Fiesta Junior runner-up James Wallis is stepping up to the GT Cup for 2022, driving a Porsche Cayman. The 16-year-old will be competing in a Vallugarun Porsche in the GTH class of the championship, sharing with experienced race and stunt driver Sam

Maher-Loughnan. Wallis had his first true test in the car at Donington Park last week and was quickly matching the class pole time from the GT Cup's most recent visit to the Leicestershire circuit. "I had been in the car with Sam, but this was my first time on my own, my first time with rear-wheel

drive and my first time on slicks," he explained. "In some ways it feels similar to my Fiesta, but with another 350bhp." Further testing is planned over the winter before Wallis makes his race debut in an all-new car in the GT Cup opener at Donington next April. **PETER SCHERER**

HSCC back to its roots with new '50s series

HISTORIC SPORTS CAR CLUB

A short series of races for drum-braked sports, sports-racing and GT cars of the 1950s will celebrate the Historic Sports Car Club's roots and broaden its portfolio from next year, and harks back to the Griffiths Formula event at Castle Combe in May 1966 that laid its foundation stones.

The Griffiths Haig Trophy — named for racing photographer Guy Griffiths, who championed newly obsolete cars such as Frazer Nash Le Mans Replicas and Jaguar C-types to keep them in the country, and HSCC prime mover Betty Haig — is set to grace three or four high-profile meetings.

Open by invitation to owner/drivers of cars built and registered from 1947-61 to period specification, in five capacity classes, races will also admit correct one-offs with competition history. Similar models built after 1959 and cars manufactured in the 1960s to original 1950s spec may be accepted. Some engine and suspension modifications are permitted.

"The philosophy is to establish a high standard of

racing with great cars for amateur drivers – I can come up with 100 cars which could compete," said Tony Bianchi, the Allard Farrallac stalwart who has looked to develop such an opportunity for a decade.

"Drivers considered as professionals, or to be driving at a pro level, by the organisers will not be able to participate.



A strong level of camaraderie between competitors and a healthy but safe competitive spirit is essential.

Griffiths Haig Trophy is inspired by HSCC's inaugural event in 1966

"All cars need to meet Motorsport UK safety requirements and follow Appendix K but the Griffiths Haig Trophy race series does not require HTPs [the FIA's historic technical passport]."

HSCC CEO Andy Dee-Crowne added: "This new race series will take the club back to its origins and marks 55 years of its prime role in the development of historic racing. It will be very appropriate to recognise the work and foresight of Guy Griffiths and Betty Haig." MARCUS PYE

Gallagher leaves his Ginetta role

GINETTA

Ginetta motorsport manager Ash Gallagher, a key figure at the manufacturer for the past 11 years, has left the company. For the majority of his time with Ginetta, Gallagher has been responsible for running its range of onemake championships in the UK. He feels he has left on a high after Ginetta Junior attracted a record 30-car grid earlier this vear and the successful introduction of the Ginetta GT Academy in 2021.

Gallagher says overseeing the Junior scholarship has been one of the many highlights of his spell with the manufacturer, the scheme helping launch the careers to look back on. No one had heard of them at the time, so to give them that chance is nice and some of them have really made a proper career out of it.



of a number of drivers

including W Series champion Jamie Chadwick and BMW Junior Dan Harper.

"Looking back, I've done 10 scholarships and looking at what the winners have gone on to do is nice," said Gallagher. "A lot of those guys entered that competition to give them a leg up and that side of things is always good "Getting to go to Le Mans and seeing my long-time colleague Mike Simpson on the grid in the big race there was another highlight — he and I used to do all the 'drive-before-you-buy' days. The teams and drivers are definitely something I will have fond memories of. They're all very nice people to work with."

Gallagher has now joined Ciceley Motorsport and his Ginetta responsibilities are set to be split between several members of staff. **STEPHEN LICKORISH**

Mini Challenge Trophy to appear at Truck events in 2022

MINI CHALLENGE

The Mini Challenge Trophy will appear at three British Truck Racing events next season as well as continuing to form part of the British Touring Car support bill at three rounds.

The 2022 calendar for the popular second-tier Cooper class has been unveiled and, as well as appearing at three BTCC events (two at Thruxton, one at Croft), it will also feature at the Pembrey, Snetterton and November Brands Hatch Truck fixtures. As part of the move, the series will now join the top JCW class in having the British Automobile Racing Club as its registered organising club rather than MotorSport Vision Racing.

Championship promoter Antony Williams says the JCWs continuing to run at only seven BTCC events helps to keep the budget for that series under control and gives more exposure to the Trophy.

"We decided, because of the three TOCA rounds, it feels like the whole Trophy series needs to be on a higherprofile stage," Williams continued. "Other than touring car events, the Trucks are probably the best supported.

"It just helps with all the commercial partners – people are starting to get a bit of sponsorship budget coming in, so it helps. It will be a BARC series but there's no hard feelings with MSVR – I would recommend them as a club to anybody."

Registrations for the championship only opened earlier this month but already places are in high demand. "It's looking very, very strong," added Williams. "We've launched the entries and we're pretty close to full already." **STEPHEN LICKORISH**



Mini aces team up for marshals' club

ENDUROKA

Three leading Mini Challenge drivers teamed up and raced together in last weekend's EnduroKa

This year's JCW champion, Dan Zelos, shared with title rival Max Coates and Cooper class champion Dominic Wheatley in a car prepared by Graves Motorsport. To ensure that the marshals' club would gain maximum benefit, Graves covered all the running costs for the car with input from other teams. As Autosport closed for press, over £1000 had been raised. Coates said: "We're doing this because the BMMC is a great club which helps marshals get trackside, and without them we wouldn't be racing." Zelos and Wheatley both enjoyed lengthy spells in the lead but, with Coates at the wheel, a failing gearbox let them down in the closing moments of the race when running fourth, leaving them classified sixth.

IN THE HEADLINES

NEW MORGAN'S RACE DEBUT

The new Morgan Plus Four made its competitive debut in the Race of Remembrance earlier this month at Anglesey. A manual version, raced by Shane Kelly, Tom Richards, Tony Hirst and James Taylor, finished 14th overall, while the automatic car – featuring a far less experienced line-up – was 40th. "The all-new Plus Four represents a huge leap forward for Morgan," said marque CEO Steve Morris. "For it to finish its first race so successfully is brilliant to witness."

CLASSIC TICKETS ON SALE

Tickets have gone on sale for the 2022 Silverstone Classic, which has moved to the end-of-August Bank Holiday weekend from its traditional late-July slot. A limited number of tickets will be available at reduced prices for those booking early, and these people will also be entered into a 'Golden Ticket' prize draw, where they have the chance of winning various prizes including a British Grand Prix weekend pass.

BRSCC'S 2022 SCHEDULE

The British Racing & Sports Car Club has become the latest organiser to reveal its provisional 2022 schedule. The club is due to organise 27 events for its categories next season, beginning with a two-day Silverstone International fixture on 19-20 March. The calendar includes two visits to Anglesey that feature night races, and a Caterham and Fiesta meeting making use of both directions of the Knockhill circuit.

TCR UK'S BRITISH GT EVENTS

Another series to announce its draft 2022 calendar is TCR UK. The championship's first two rounds will be in support of British GT at Oulton Park and Donington Park, while it will also again race at Castle Combe (below). The remaining four fixtures

feature at Brands Hatch to raise money for the British Motorsports Marshals Club.



BRIAN PHILLIPS

return visits to Oulton and
 Donington alongside trips to Brands
 Hatch and Snetterton – will be at
 Club Time Attack events.





BRX finale cancelled but no champion crowned

BRITISH RALLYCROSS

Plans to organise a new final round of the 5 Nations British Rallycross Championship following the cancellation of the scheduled event at Spa next month have been unsuccessful.

The sixth event of the campaign was due to be held at the Belgian venue on 4-5

December, but organisers announced that it would not go ahead due to scheduled work at the track, severe flooding and the ongoing COVID-19 situation. Despite attempts by the organisers to find an altenative, the season has now been declared complete.

Hannah Rynston, 5 Nations BRX coordinator, said: "It is disappointing that once again factors out of our control have ended our season. It would have been great to have gone out with a bang knowing that we were holding our final races of the year, but we still had avenues open that could have given us another round of competition. Unfortunately, we were unable to make those options work."

The last round of the season therefore was at Lydden Hill earlier this month, with champions being declared in a number of categories.

No Motorsport UK British Rallycross (Supercars) champion has yet been declared, though, amid an ongoing inquiry by the UK's governing body.



68 AUTOSPORT.COM 25 NOVEMBER 2021

Elise Trophy joins Supercup ahead of 2022 revamp

ELISE TROPHY

The Elise Trophy is set to join the MSVT Supercup next season, with the latter series undergoing changes to its name and format.

The Elise Trophy was the very first series to be launched in conjunction with MotorSport Vision Racing, in 2007. "Elise Trophy is a series that is close to our hearts at MSVR – being with us from our inception, it had become part of the furniture," said MSVR competitions manager Joe East.

"The drivers and teams that are involved in the series are absolutely fantastic, and we wanted to find a solution to continue racing together, but that was also financially viable for us as an organising club.

"Although it's never easy moving a series from their standalone grid to sharing one with



other competitors, the drivers and teams were all very understanding, with many committing to staying in the series in its new guise for 2022."

The Supercup, meanwhile, will be rebranded Turismo X, and will feature two 20-minute races instead of a single 45-minute pitstop contest. Qualifying will take place over 20 minutes and will be followed by a one-lap shootout to decide the top 10 positions for the race-one grid. **STEFAN MACKLEY**

Roskell and Roughead finish on top in Cadwell Park rally

CIRCUIT RALLYING

Fastest time on six out of eight stages at Cadwell Park gave Neil Roskell and Andrew Roughead victory in their Ford Fiesta R5 on the second round of the 2021-22 *MN* Circuit Rally Championship.

The opening few stages were wet, and initially Josh and Tamsyn Davey (Darrian T90) and Josh Payton and Jamie Vaughan (Ford Escort Mk₂) duelled for second.

As conditions started to dry, former champions Barry Morris and Tom Hutchings managed to split the secondplace fight and, by the end of stage five, their Darrian T90 GTR was in second. The Davey car had changed to full slicks and slipped to fourth behind Payton, but the rain returned for the penultimate stage with most of the field on slicks.

Roskell secured the win with 41s to spare after leading throughout and dedicated his success to his son Nath, who passed away only a week before the rally.

Morris was second and topped Class D after taking two fastest stage times, with Payton in third and the Escort Mk2 of Dane Walker and Dave Boyes fourth after they demoted Davey on the penultimate stage. The top six was completed by Darrell Taylor/Dylan Thomas (Fiesta Rally2). **PETER SCHERER**



GT5 RUNNER-UP IN SINGLE-SEATER MOVE WITH ELITE

GB3

Ginetta GT5 Challenge frontrunner John Bennett will move across into single-seaters next year when he contests the GB3 Championship with Elite Motorsport.

The teenager finished runner-up in GT5 this season, scoring five wins in his second season with Elite. But he is under no illusions how difficult the transition will be.

"This will be my first season in single-seaters so obviously there will be a huge amount to learn and adapt to, but I am definitely up for the challenge," said Bennett. "I believe a realistic goal would be to finish inside the top 10 in the championship, and to compete for some top five finishes.

"It was a relatively straightforward decision to continue racing with Elite. I've really enjoyed the past two years with them and they have pushed me on well, having never driven a car when I started with them, to now becoming GT5 runnerup and one of their GB3 drivers."

Bennett (below) will follow a similar path to Tom Lebbon, who moved straight into GB3 for Elite's first season in single-seaters after winning the Ginetta Junior title with the squad in 2020. He also stays on with Elite for next season.

"I think that Elite have performed very strongly for their debut season in GB3 and that I will be in a great position for my career," added Bennett. **STEFAN MACKLEY**



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Perfect mix of young and old

The gruelling Roger Albert Clark Rally this weekend has its best-ever entry, including a gaggle of young chargers hitting the forests in 40-year-old cars

PAUL LAWRENCE

n terms of UK forest rallying, nothing comes close to the biennial Roger Albert Clark Rally, which starts in Carlisle this afternoon (Thursday) and finishes in Carmarthen on Monday afternoon. In an era when a typical forest rally, including rounds of the British Rally Championship, are contested over little more than 40 competitive miles, the Roger Albert Clark Rally is a stand-out challenge.

Run through England, Scotland and Wales over five days and more than 320 competitive miles, this is a full season of rallying in one event. The contest's longest day, Friday, takes in almost 110 miles in the daunting Kielder Forest in Northumberland. The days are long, the conditions are tough and the atmosphere is unique for the UK's longest special stage rally.

At a time of office-hours rallying, the Roger Albert has built a unique place in the sport and its popularity is greater than ever for this 14th edition. Despite losing 15 overseas entries to COVID-19 uncertainty, a record field of 145 cars will gather in Carlisle. Though focused on historic rally cars, the event's Open Rally allows any two-wheel-drive machine to take part.

It's not just popular with competitors. The fans come out in big numbers and advance ticket sales this year are double that of 2019. It is an event that takes many people back to a golden era of UK rallying when the original RAC Rally ran in the 1970s

"Run over five days and 320 competitive miles, this is a full season of rallying in one event"

and 1980s and the man that the rally is named after was at

Matthew Robinson, Roger Chilman, Paul Barrett and Ben Friend.

BRC ace Osian Pryce, who narrowly missed out on taking the title last weekend, former World Rally competitors Rhys Yates and Harry Hunt, and all-rounder Seb Perez have each got a full specification Group 4 Ford Escort Mk2 for the occasion. They've all been drawn to the rally by the chance to compete in BDG-powered two-wheel-drive cars from before they were born.

A year ago, the Roger Albert Clark Rally was the only event in Pryce's diary as his BRC campaign came together later. "It's a different challenge," says Pryce, who has some Escort Mk2 experience. "The top boys that do the event every time, they're on it from the first stage, but you've just got to look after the car. They're not modern cars with modern suspension, and you've got to bear that in mind and the rally's quite long, with dark stages as well.

"There are worse things to be doing than rallying a Mk2 Escort over a week in November. I just want to go out and enjoy it!"

Yates, meanwhile, has BRC and WRC form with M-Sport but has had an Escort project in the back of the workshop for several years. "It was a COVID project to get on with," he says. "We did the Carlisle Stages last month as a warm-up and it went well and I enjoyed it but it was very, very difficult to judge the grip."

As well as European Rally Championship and WRC experience, Hunt has most recently competed on endurance events like the Dakar Rally, so five days is still something of a sprint. "We've not done much gravel rallying for seven or eight years and so we did the Scottish Rally this year and then the Rallynuts Stages just as a warm-up for the Roger Albert Clark Rally,"he says.

"The Roger Albert Clark is so historic and just so well-known and it's got legendary status. Plus, I'm a big fan of the endurance side of it. We're doing this for fun, so let's just have a laugh. Driving the Escort is so much fun and the rear-wheel drive is just a joy."

Perez will run a freshly built Escort Mk2 from the team at Dansport. The talented race and rally driver has enjoyed a varied season and a month ago took his best BRC result so far with a podium on the Cambrian Rally in a modern 4WD Ford Fiesta. The following day he raced a classic 1966 Porsche 911 at Silverstone! This is not his first Roger Albert, but it is his first time doing it in a full-spec historic Escort after previously running in the Open Rally in a non-historic version. Further down the entry list, *Top Gear*'s Chris Harris will tackle the event in a modified Escort Mk2. When not larking about for the cameras, Harris is a very serious competitor and this will be his biggest rallying challenge to date. Indeed, it will be a challenge for everyone and that's one of things that makes the Roger Albert Clark Rally such a highlight of the UK calendar. #

the top of his game.

In the modern world, organising such an event is a task of unimaginable proportions, yet rally manager Colin Heppenstall and his team somehow deliver an event to remember. No one else in UK rallying would take on an event of this scale. As well as Kielder and southern Scotland, more Welsh stages are on the 2021 schedule including gems such as Dyfi, Gartheiniog and Dyfnant. But for many crews, the first focus is to survive Kielder on Friday when a 13-hour day includes at

least three stages in the dark. Fog, ice and snow are all possible in Europe's biggest man-made forest.

This year, more than ever before, a gaggle of young guns will take on the established historic rallying aces like Jason Pritchard,



Mitchell brothers march to IndyKa 500 win at Brands

BRANDS HATCH MSVR 20-21 NOVEMBER

Brothers Gary and Ian Mitchell beat more fancied teams to win the third running of the EnduroKa IndyKa 500 race, which brought the Brands Hatch season to a close.

The GM Performance pair moved steadily up the leaderboard, reaching the front on lap 181 out of 396, and stayed in the running from then on. The top three, including second-placed father-and-son pair Simon and Adam Bonham, made only three pitstops each.

Callum and Jim McDougall, partnered by Mike Marais and Leon Bidgway, impressed throughout and were elevated to third by a penalty for Paul Robson, Dave Mayer and Stratton Mackay, who made five pit visits. By comparison, 2015 Le Mans 24 Hours winner Nick Tandy and his trio of co-drivers stopped 11 times on their way to seventh.

Adam Blair maintained his unhappy record of not making the podium at this event when the IP Racing car he shared with Scott Parkin, Oliver Wilmot and Mark Witherington lost drive and left

second place in the closing minutes. Mini Challenge stars Dan Zelos, Max Coates and Dominic Wheatley were on course for a top-four finish when their car succumbed to worsening gearbox problems, triggering a slightly early chequered flag when it stopped.

Sunday's enduro was supported by a quintet of races on Saturday, including the last Champion of Brands Formula Ford 1600 races before a format revamp. These drew a small field, but featured hard-fought duels between Walter Hayes Trophy top-six finisher Lucas Romanek and Morgan Quinn in Van Diemens.

A quick start from second on the grid gave Romanek the race-one advantage, but Quinn probed his defences for the next 18 laps and finished less than a car length behind. Romanek won again in race two, but not before Quinn pounced at Paddock Hill Bend two tours from the end, only to hand back the lead with a mistake at the same spot the next lap.

Diesel Volkswagen Golf driver Scott Parkin had already wrapped up the Trackday Championship, and added another success in the seasonal finale while Chris Payne's Caterham Supersport recovered from a poor start to finish second. Third, just over a lap behind, went to John Lyne's BMW E36, which was one of those that lost out when the safety car couldn't find the race leader during the inevitable pitstop confusion. Parkin also won his class in the MSV Supercup, but the story of the race was Darren Goes's effort to win overall and take the title from Nick Jackson and Ollie Pidgley in an older SEAT. Pidgley needed to get past in order to defend a small points

WEEKEND WINNERS

ENDUROKA 500 GM Performance

(Gary Mitchell & Ian Mitchell)

CHAMPION OF BRANDS Races 1 & 2 Lucas Romanek (Van Diemen JL13, below)

TRACKDAY CHAMPIONSHIP Scott Parkin (VW Golf TDI)

MSV SUPERCUP Darren Goes (SEAT Leon Cup)

TRACKDAY TROPHY

Ryan Parkin & Scott Parkin (VW Golf TDI)



For full results visit: tsl-timing.com

advantage, but lost power and had to settle for fourth. His team-mates Dylan Brychta and Martyn Smith took the fight to Goes in another SEAT, but couldn't unseat him from the lead.

The hard-working Parkin Golf needed a full service in the minutes

him stranded moments after taking



before its third outing of the day for the Trackday Trophy, and would have missed the race but for a first-corner shunt that caused a stoppage.

Ryan Parkin handed over to brother Scott late in the pit window, and they inherited the lead when Chris Kirby's Caterham, seemingly on its way to a win, expired in a cloud of steam. A four-way struggle for the following places went to Lyne's BMW. **BRIAN PHILLIPS**

72 AUTOSPORT.COM 25 NOVEMBER 2021

Edwards beats the odds to take third title

ULSTER RALLY BRC 19-20 NOVEMBER

If Matt Edwards has taught followers of the British Rally Championship any valuable life lesson it is that you should never give up, even when the odds appear to be heavily weighted against you.

Going into last weekend's deciding round, the Ulster Rally, Edwards had it all to do. He trailed title rival Osian Pryce by eight points, and he needed to win in a car he's had minimal opportunities to test, on an event that was taking place three months later than normal, with two thirds of the final loop of three stages running in darkness.

All of the pressure was with the Welshman, and that was before talk of him becoming the first driver in the 63-year history of the BRC to win the title three seasons running was added to the equation. In the end, Edwards and co-driver Darren Garrod did what they needed to do, winning the rally after Pryce bowed out on the penultimate test, his Volkswagen Polo R5 leaving the road and ending up in a field.

On the seven stages before that, the Melvyn Evans Motorsport team-mates took turns at topping the timesheets. At its largest, the gap between the pair was 9.1 seconds and at its smallest it was only two. "We both had moments — I nearly hit a wall on the second-to-last stage," recalled Edwards. "It has been such an intense and demanding day. Judging the pace was probably the hardest thing of all, I think.

"Huge credit to everyone who has helped and supported me this year. It has been a huge effort from everybody. I'm just chuffed that we've pulled it off after



two years of waiting due to COVID."

The late retirement of Pryce and co-driver Noel O'Sullivan promoted Josh Moffett (Hyundai i20 R5) up to second on his first BRC appearance since August's Grampian Forest Rally.

Moffett benefited when four-time champion Keith Cronin incurred time penalties. The Irishman had a torrid return to his home round of the championship. To keep him in the event, his mechanics had to hold onto his Ford Fiesta Rally2 car four minutes longer than the allowed time to get to the bottom of a glitch that sent it into 'road mode' following a heavy impact on stage three, which dropped him to third.

Sam Moffett was another BRC returnee and surprised many by reverting to the older R5 version of the Fiesta. He too had problems and admitted that failure to bed in the car's brake pads beforehand had been a schoolboy error. The subsequent overheating cost him bags of time, as did an off down a field on the penultimate stage



that required the help of nearby spectators to get him freed before he took fourth.

The Junior British Rally Championship was also settled. Like the main BRC1 title, it was a two-horse race involving William Creighton and Eamonn Kelly. Despite a scrappy drive by his own high standards, and a near-miss with a concrete gate post, Kelly took a second victory of 2021.

But that wasn't enough to deny Creighton the title. Twice a runner-up, it was a case of third time lucky for the 24-year-old, whose reward is a funded drive on a round of the World Rally Championship next season. JASON CRAIG

ULSTER RALLY RESULTS

BRITISH RALLY CHAMPIONSHIP

1 Matt Edwards/Darren Garrod (Volkswagen Polo GTI R5) 1h28m24.4s; 2 Josh Moffett/Andy Hayes (Hyundai i20 R5, below) +2m50.6s; 3 Keith Cronin/Mikie Galvin (Ford Fiesta Rally2); 4 Sam Moffett/Keith Moriarty (Ford Fiesta R5); 5 Sebastian Perez/ Gary McElhinney (Fiesta Rally2); 6 Eamonn

Kelly/Conor Mohan (Fiesta Rally4). Junior BRC Kelly/Mohan.



For full results visit: rallyscore.net

25 NOVEMBER 2021 AUTOSPORT.COM 73

PRAGA ON THE PROWL

Ahead of Praga running its own standalone series in partnership with Britcar, Autosport got behind the wheel of the Czech company's R1 – and was left very impressed

BEN ANDERSON

PHOTOGRAPHY JEP

'm in this little-known closed-top sportscar, hammering around Donington Park, overtaking Porsche 911s and McLaren supercars like they're Nissan Micras being driven by doddery pensioners. I've enjoyed myself so much that I've hung around hoping for an extra run in the car. When it finally comes, I gain the benefit of my brain auto-processing everything it learned in the morning. Now I'm beginning to join the dots properly - full gas through the Craner Curves, attack the Old Hairpin in fourth gear, getting into a flow of sorts. Clear laps are hard to come by - but when one does, I'm lapping the Grand Prix loop in well under 90 seconds. My brain is rattling from the vibrations, but I'm loving every second. These are the days you fall in love with motorsport all over again. Today, it's all thanks to Praga. Like most people, I'd never heard of Praga. Unless you're an avid follower of Britcar and its Endurance class structure, why would you? It sounds a bit like a famous fashion line, but not like any serious car maker you've heard about. That's a legacy of the Cold War and what used to be called the Iron Curtain. To automotive aficionados in the Czech Republic, Praga is sort of the Rolls-Royce of Eastern Europe – renowned maker of cars, trucks, tanks, fire engines, basically" anything with a motor" according to Praga's UK managing director Mark Harrison. Mark worked at McLaren when it (re)launched its automotive arm in 2010. His job since the start of last year has been to build brand awareness for Praga globally, and in the UK that means motorsport

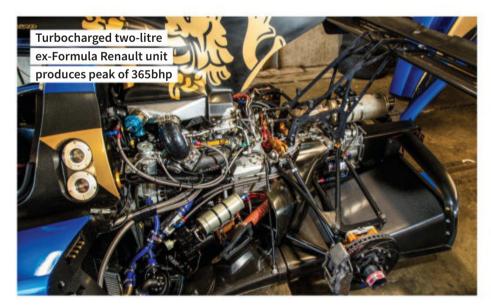


EC BARKARASKER / @ #

– and specifically a racing programme, and more specifically a
one-make series, which will begin on the Britcar package in 2022
after a season racing as a bespoke class within the Endurance grid.
Praga has prior motorsport heritage, competing annually in the
truck division of the Dakar Rally according to Harrison. It is endorsed
by Czech former World Rally driver Roman Kresta and counts Czech
former GP2 podium finisher Josef Kral and none other than recent
ex-Formula 1 turned IndyCar racer Romain Grosjean as ambassadors.
The car itself is a neat-looking closed-cockpit sports-prototype that

PRAGA R1 TRACK TEST CLUB AUTOSPORT

Praga's long and exacting gestation has produced a car that pleases novices and old hands



DEVEA

VRYAN

"I'M LOVING EVERY SECOND. THESE ARE THE DAYS YOU FALL IN LOVE WITH MOTORSPORT ALL OVER AGAIN"

Radical's proven SR8 or new SR10 models. Power-wise, Revolutions and Radicals come in just north of 400bhp, but at just 365bhp in its highest engine mode, the turbocharged two-litre ex-Formula Renault unit in the back of the Praga R1 is giving up 60bhp to Radical's turbo SR10 and a bit less to the converted bike engine(s) in the SR8 and the

occupies the territory between club racing and Le Mans feeder categories such as LMP3. In fact, VR Motorsport – the UK distributor for Praga – tells me the R1 has previously beaten LMP3 cars on twisty circuits such as Zandvoort, owing to its lightness and extra agility. It retails at €195,000, which puts it a step clear of Radicals and Revolutions – which also occupy this space and retail closer to £100,000 – in terms of price.

As for technical numbers, the R1 is well over 100kg lighter than the Revolution (643kg to 795kg) and just under 80kg lighter than

Ford V6 in the back of Phil Abbott's Revolution. The R1's Hewland transmission is stretched at this output, but that too helps keep the Praga light and compact at the rear.

All this means the lap time spread is reasonably tight. An SR3 will do the GP loop in around 91s; an RXC in just over 90s (comparable data for the new SR10 is not available yet). Former Radical European Masters champion (and British Formula Ford race winner) Victor Correa has a neat video on YouTube from 2012 of him lapping an SR8 in 1m26.7s. When the Revolution and the Praga each competed at Donington last month (in separate categories), Ross Kaiser's pole time in the Revolution was 1m28.683s; the fastest R1 did 1m26.367s. Having driven Radicals (multiple times) and the Revolution (in the wet) around Donington, I'm keen to see how the Praga stacks up. The R1 should be more sophisticated than the spaceframe Radical range, »

CLUB AUTOSPORT PRAGA R1 TRACK TEST



As its profile rises, Praga will have its own one-make series on the Britcar package in 2022

"THE FEEDBACK WE GET FROM EVERYBODY IS SENSATIONAL. THEY LOVE IT. IT'S REALLY ACCESSIBLE"

while also benefiting from several years more development than Abbott's fledgling Revolution. Mostly, this work has focused on suspension and engine tuning. Earlier iterations of the turbocharged two-litre Renault engine were fairly brutal in their power delivery says VR Motorsport, which has been working with the R1 since 2015.

"A guy called Jan Martinek, a suspension engineer at Skoda who worked on motorsport suspension, he was sort of the engineering inspiration behind this," says Harrison. "The reason why it's taken let's say eight years to get a presence is because before working out where they wanted to go racing, they [Praga] designed and engineered and built the perfect racing car. It's a bit arse about face in that respect, but it means we are where we are now with this unique full-carbon aero racer that is unlike anything else out there."

Most of the R1s made already are in the US. The car has contended for victory in the Thunderhill 25 Hours, as well as tasting success in the Dutch Prototype Challenge with VR Motorsport and Tim Gray (of 750 Motor Club RGB fame), and is now dominating the Britcar Endurance scene after VR Motorsport engineered a conventional roll hoop into the car to meet Motorsport UK safety criteria.

Having started out as what Harrison describes as a "side hustle" from HQ in the Czech Republic, Praga now boasts dealers for the



R1 in California, the Benelux region of Europe, Poland and the UK and Ireland. It's also branching out into Australia/New Zealand and the UAE, while discussions have started in South Africa, South Korea, Spain, Germany and Brazil.

Praga's presence in Britcar grew to 10 cars this season. The plan is to go solo in 2022 with a dedicated single-make series running under Britcar's umbrella. This is a full year ahead of schedule for Praga, Harrison says, but he's confident of getting 16 cars on the grid.

"Praga's never really done any sales and marketing," says Harrison. "It really was the logic 'if we build something great, people will buy it'. But life's not like that... there are odd cars dotted around: Dick van Elk at Dutch GT and Supercar saw it, loved it, got involved; Vincent Randall at VR Motorsport in the UK saw it a few years ago at Autosport International. Vincent really has done the donkey work over the last two or three years to get it approved into UK racing.

"The feedback we get from everybody driving it is sensational. They love it. It's really accessible. Jem Hepworth, last year's Britcar Endurance champion. That was her first full season of racing. And she was 18 I think, so it's really accessible to novice drivers. But also, you've got really experienced guys like Ben Collins and others, who get a hell of a lot out of it as well."

When we chat at Donington, Collins is busy doing some set-up work – softer suspension and lighter steering – for the 24 Hours of Zolder

(where his R1 qualified fifth overall). BBC *Top Gear*'s former Stig says he hasn't raced anything properly for seven years, so when friend Mike Newton — who's hosting Praga's UK HQ out of his own Cheshire showroom — came calling, Collins seized the chance to relight the fire. "I got a test at Oulton Park in the wet,"he recalls."Absolutely loved driving it — it was just like driving an LMP2 car. The best way to describe the handling is somewhere between Formula 3 and LMP2 because it's got more power than an F3 car but it's a bit heavier. "You can brake really late, really hustle the car. It handles more like a single-seater. It's got lovely balance. A classic track like this — you've got it pinned through Craners, carrying speed, it's very reminiscent of racing in F3. The only place they're quicker than us is the hairpins, because they're lighter on the brakes, everywhere else we're all over it." Collins says earlier iterations of the R1 were "quite physical" before

76 AUTOSPORT.COM 25 NOVEMBER 2021



the suspension was upgraded and the steering lightened. "But that's the amazing thing, they're very reactive and they've got this really strong engineering pool out in the Czech Republic,"he adds. "Now, the car's got no vices. It's the perfect way to progress from a car that's softer and more slippery. The only thing we're noticing and are playing with is that first turn of the steering wheel is very crisp, so if you're heavy handed you'll know about that quite quickly."

This is something I learn during my first run in the damp on wet tyres, which begins with an unfortunate double spin



through Schwantz Curve after the rear-left wheel meets the kerb. Suitably chastened, I build up speed and confidence gradually. Feeling the grip levels on treaded Goodyears is quite vague, so a lot of the driving is trial and error – but by the end of this run I can feel the wets are beginning to overheat. Turning through the bottom of the Craners creates a frightening kick of oversteer as the rubber reaches its limit. My'crew chief'(former 750MC Stock Hatch and RGB racer) Al Boulton and I agree the track has reached crossover point, so it's time for a short break while we wait for some used slicks to finish cooking in the oven. Once those boots are fitted (at 90C), I wind the engine up from Map 1 to Map 3 – taking output from 320-365bhp – and crack on. I gain confidence as the track improves and find the car is better balanced at high speed with the extra rear grip. I'm picking up a touch of irritating mid-corner understeer through Redgate and presume this is me braking too early and making the corner go on too long. I'm also losing time through the high-speed run from Redgate to Coppice, because I'm still building the trust required to attack the track properly. I also notice heavy vibrations coming through the headrest, particularly through the higher-speed corners - it sounds like

accidental radio chatter or some kind of nonsensical alien communication! I'm told there is a lot of vibration transferring from the engine bay, and that developments are in progress to dampen this.

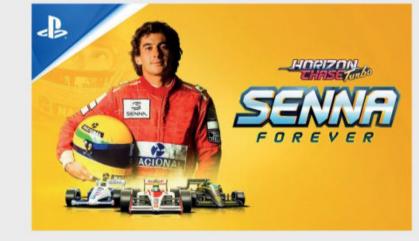
By this time, I've worked my way into the 1m30s, which puts me about 4s off the pace. I'm convinced I can do better, so hang around waiting for another chance while the track improves. I want to push myself more through the section from Redgate to Coppice in particular, where I'm giving away most of my time. Despite extra traffic as the track

busies up after lunch, this bonus outing is easily my best run. I'm more committed through the high-speed sections, later on the brakes, more decisive with the throttle exiting the turns, faster through the esses, and the hairpins flow much better from entry to exit.

I'm now within 3s (1m29.354s) of the pace and better accessing the prowess of the car through Craners (flat in sixth), Old Hairpin and McLeans. My driving is not perfect but getting closer to the limit. That touch of understeer through Redgate is still there, despite me being more aggressive on entry. Al tells me the car has been set up with a degree of 'safety understeer' for its regular driver, who simply can't stand having the rear snap on him. Had our day continued, I'd have liked to dial that out — maybe soften the front a bit (as it's cold) or stiffen the rear to try to sharpen things up. But this is minor stuff. The R1 is fantastic to drive — like a perfect mix of Radical and Revolution: so light it accelerates much better than the Revolution; and so nimble it handles better than the SR8. The closed cockpit means no buffeting from the wind either! A real joy. Outside of professional sportscar racing, it surely doesn't get much better than this. Remember the name.

A FITTING TRIBUTE TO AN F1 ICON





VIDEO GAME DLC SENNA FOREVER RRP £4.99

When it comes to immortalising three-time Formula 1 world champion Ayrton Senna in a game, *Horizon Chase* was not the first choice that came to mind. But after cars. It's even best played with the D-pad as opposed to those newfangled analogue sticks.

BACK

This is all wrapped up in bright colours, deliberately sharp edges and overlayed with an electronic soundtrack. All the ingredients are here for a throwback experience.

The Senna Forever content is a wonderfully nostalgic addition to the existing game, first released in 2015 for mobile devices and then in 2018 for consoles and PC. The older F1 cars perfectly suit the modern-classic vibes that the game so heavily leans on, and will bring back happy memories for those who grew up watching that yellow helmet dominate all those years ago.

The main career is made up of five chapters, each focusing on certain timeframes within Senna's feted F1 career, starting in 1984, his rookie season.

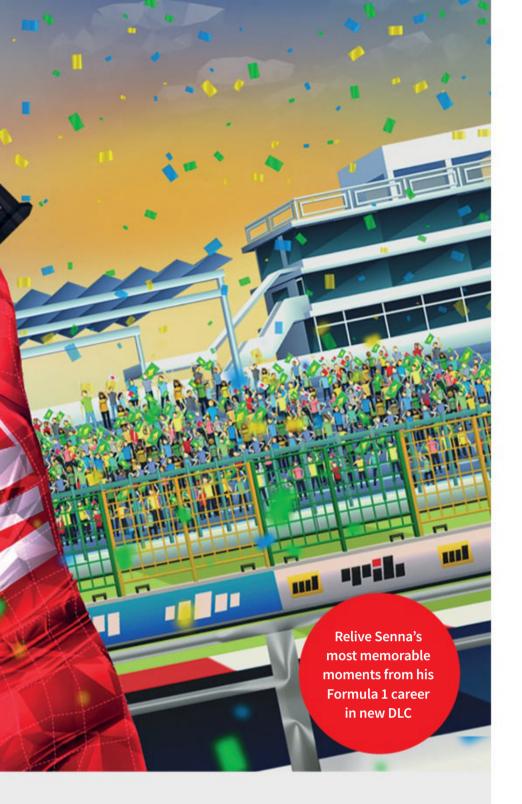
Here, each race lasts three laps and you always start at the back. You must manage your fuel and boost levels, both of which can be topped up by driving through on-track pick-ups mid-race. Overtaking isn't exactly a skill – you simply time your turns correctly and you either hit a game-controlled opponent or not. Simple as that. If you are unlucky and crash, then you do lose a substantial amount of momentum, so on straights your opponents are best avoided. Likewise, if you hit a barrier too hard or drive on the grass. It may be heavily assisted, but there is at least a modicum of skill required. This is especially true of the later events in the quicker cars. You'll be flying so fast through chicanes that feeling car sick is a genuine concern. I felt as if I needed to find my Horizon Chase 'legs',

FINISHING STRAIGHT

spending some time with the new *Senna Forever* downloadable content (DLC) for the retro-infused arcade racer released last month, it's clear that there's a lot of sense behind the decision.

This is about educating a whole new generation on Senna's rise to glory — the standout Toleman performances, the first win with Lotus, and the three world titles in a red-and-white McLaren. Back in this writer's formative years, the first video game I ever played was *Ferrari Grand Prix Challenge* on the original Game Boy. As it happens, *Horizon Chase* drives in much the same way, with simplistic handling that holds your hand and cartoonish representations of single-seater race

FINISHING STRAIGHT



my eyes struggling to keep up with the action.

As you complete each mission in the career, there are bonus objectives called Senna's Marks. These could be using your boost on a set lap, or nailing the perfect start, for example. Between certain events, there are also interstitials that inform you of some of his real-world triumphs.

There is no licensed content here, apart from the Brazilian hero's name and appearance, but combine the history lessons with facsimiles of his cars, misspelt rivals (Keke Resborg, anyone?), addictive objectives and cheekily recreated interpretations of F1 circuits from the era, and it's hard not to fall head-over-heels for this game.

To cap it off, there's a World Championship mode where you drive in the other racing cars from the generation and it's playable with up to three other people thanks to the split-screen option.

Horizon Chase Senna Forever does not have the most engrossing gameplay or a rewarding skill tree.



OTORSPORT IMAGES/



HAMILTON'S MASTERCLASS PILES PRESSURE ON VERSTAPPEN

Lewis Hamilton scored his seventh win of the Formula 1 season in the Qatar Grand Prix to make up more ground on Max Verstappen in the title fight with two races remaining. Ariana Bravo is joined by Luke Smith (Autosport F1 reporter) and Stuart Codling (GP Racing executive editor) to discuss all the talking points in the latest episode of the Autosport Podcast.

WHAT'S ON

INTERNATIONAL MOTORSPORT

Super GT Round 8/8 Fuji, Japan 28 November 🔯 Livestream on motorsport.tv, Sat 0530, Sun 0400

World Rallycross Championship

Rounds 8-9/9 Nurburgring, Germany 27-28 November **TV** Live BT Sport 3, Sat 1400, BT Sport ESPN, Sun 1400

World Touring Car Cup Round 8/8 Sochi, Russia 28 November **TV** delayed Eurosport 1,

Sun 2300, Mon 0000



Once you've finished a few races, you'll most likely have the hang of it. But trying to complete all the bonus objectives and collecting the coins is a satisfying enough gameplay hook.

The fact that it's wrapped in nostalgia and will hopefully entertain a younger audience with an inspiring tale of heroics makes it even more engrossing. It's this history lesson more than anything, and that makes it an initiative to get behind.

Senna Forever DLC is available for Nintendo Switch, PC, PlayStation 4, Xbox One, Android and iOS. For daily racing game news, visit Traxion.GG. **TOM HARRISON-LORD**

25 NOVEMBER 2021 AUTOSPORT.COM 79



FROM THE ARCHIVE

The wreckage of Jackie Oliver's BRM P153 sits ablaze while Bruce McLaren (McLaren M14A), Graham Hill (Lotus 49C) and Rolf Stommelen (Brabham BT33) continue their competitive efforts untramelled by any attempt at official intervention – apart from the foam slick deposited on the track by the risible efforts to tackle the inferno – during the 1970 Spanish Grand Prix at Jarama. Oliver had lost control on lap one and speared into Jacky Ickx's Ferrari 312B, engulfing both in flames. Ickx's car is just visible on the far right, having rolled, driverless, across the track. Thankfully, Oliver was unhurt and Ickx's burns were not serious.



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For more great photographs, visit motorsportimages.com



WHAT COULD HAVE BEEN

When a career-changing move goes begging

JAMIE GREEN IN F1

His 16-year run as a paid professional in the DTM may have been "beyond my dreams as a young kid from Leicester", but Jamie Green certainly had the talent for Formula 1. The Mercedes-backed 2004 Formula 3 Euro Series champion was "offered a discounted price" for GP2 with ART for 2005 before committing his future to the DTM, while keeping a foot in the F1 door as a simulator driver for Mercedes-powered McLaren.

Given McLaren's long-term investment in Lewis Hamilton, who Green had beaten in the 2002 Formula Renault UK series and in 2004 in F₃, it was always going to be tough to secure an F1 race seat. Could it have been different if he'd accepted an offer to join Renault's Driver Development Programme for 2003? Green isn't so sure.

At the time, he was focused on securing a British F3 seat with Carlin, which ran Mugen Honda engines. Despite Renault powering Heikki Kovalainen to five wins from the last nine races in 2002, running its engine didn't appeal to Green, who had already turned down a contract from Mercedes – its bosses impressed by his DTM test showing on the way to winning the 2002 McLaren Autosport BRDC Award

- for the new-for-2003 Euro Series.

"It looked like the Honda was better than the Renault," he says. "I tested for Carlin and for me that just felt right."

With support from kart circuit owner Paul Fletcher, Green "was in the fortunate position where I had the budget" not to rely on a manufacturer affiliation for 2003. Despite the clear F1 link, and Renault's willingness to fund Kovalainen and Jose Maria Lopez up to GP2 in 2005, Green believes its offer "wasn't that great".

"Some of the money you still had to bring yourself," he says.

Winning both races on his F3 debut at Donington Park ultimately prompted Mercedes to swoop again, Green putting pen to paper later that year.

"Maybe I'd have ticked all the boxes for Renault and my career might have taken a different path," he reflects. "But Renault was a bit like Red Bull in that they didn't mind throwing you in the bin after one bad year. I had 16 years of being paid to race in the DTM, so it's glass-half-full really. Was I good enough to race in F1? Without a doubt, yes. But I've earned a good living and been a professional driver." JAMES NEWBOLD

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IN NEXT WEEK'S ISSUE

Farewell Anthony Davidson

WE SPEAK TO THE **NEWLY RETIRED BRITISH WORLD** CHAMPION



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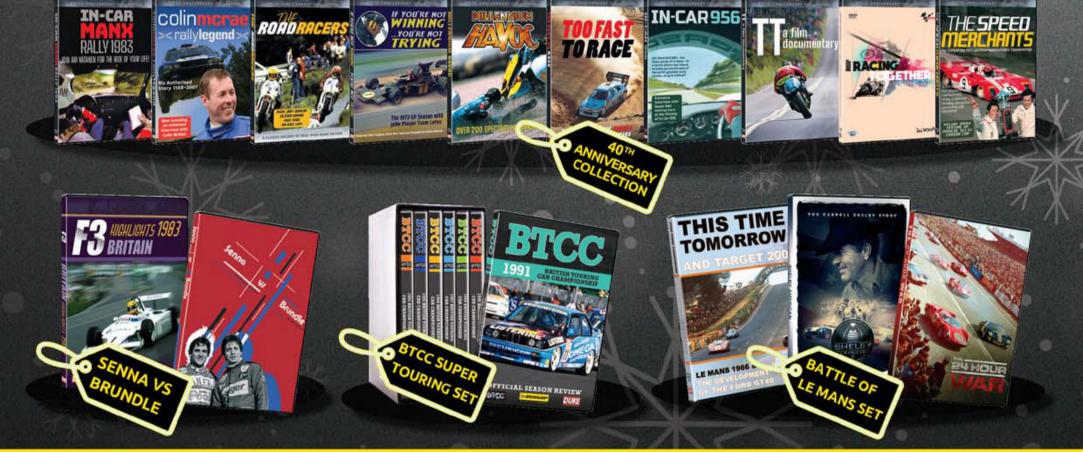
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82 AUTOSPORT.COM 25 NOVEMBER 2021

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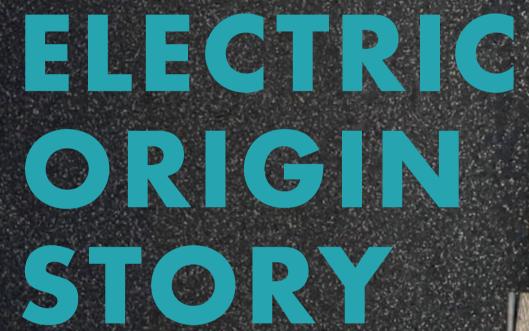
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MUTOSPORT FORMULA E

IN ASSOCIATION WITH **Modis**



HOW MERCEDES BUILT ITS VICTORIOUS FORMULA E TEAM 20 232414

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A

PLUS Nyck de Vries on why his latest title felt so different

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FORMULA E CONTENTS

IN ASSOCIATION WITH **MODIS**



March 2019: Stoffel Vandoorne tests the naked Silver Arrow 01 for the first time at Varano

FULFILLING EXPECTATIONS

e all thought Mercedes would be successful the moment its entry into Formula E was announced – didn't we? Formula 1 dominance set the precedent, and it seemed a given that it would

and it seemed a given that it would outspend and use the might of High Performance Powertrains in Brixworth to outdevelop its electric rivals.

After three years in the series, the first under the 'HWA Racelab' banner with a customer powertrain deal (page 16), it now stands as constructors' champion. In 2021, Mercedes had demonstrably the quickest car and that allowed Nyck de Vries to complete a title double. Job done. But the stocked trophy cabinet belies a tough path to the top, a story recalled by some of its key architects on p6.

And while we all expected Mercedes to be in the mix, that relied on no sense of complacency creeping in. Team principal Ian James reflects on p5 on how the squad was built and why people with opposing views were paired with one another. In this supplement – commissioned in association with Mercedes' engineering partner Modis – we also hear from de Vries. The Dutch racer already had 10 title wins in karts and cars to his name. But as he writes on p4, wrapping up the Formula E spoils felt quite different due to the unpredictable nature of the series.

Of course, Mercedes has since revealed that it will exit Formula E at the end of the 2022 season. Expectations have already been satisfied to a degree, but there's still a chance for two more crowns to establish some kind of battery legacy and complete its timeline in the championship.





4

6

COVER IMAGE Alastair Staley/ Motorsport Images

THE CHAMPION'S VIEW NYCK DE VRIES

Formula E's latest champion explains why his electric success feels strange

5 THE TEAM BOSS'S VIEW IAN JAMES

> Merc's team principal remembers how he built the battery 'superteam'

- A SILENT COUP **MERCEDES' BATTERY BEGINNING** Why it entered Formula E, and its difficult climb to the top
- 12 SNAPSHOT 2021 LONDON E-PRIX

Our favourite image and the key stats from Mercedes' Formula E tenure

14 UNDER THE SKIN THE GEN2 CAR'S TECH SECRETS How the so-called 'difficult second

album' changed the game for FE

VENTURI EFFECT A HAPPY CUSTOMER

Why Mercedes can reap the rewards from sharing its engine with a rival

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BE AN ACE ENGINEER

Career advice from the race engineer who took an aerospace detour



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FORMULA E OPINIONS

NYCK DE VRIES

WHY MY TITLE SUCCESS IN FORMULA E FELT **SO DIFFERENT**

he truth is, I'm still waiting to fully reflect on last season and becoming the 2021 Formula E drivers' world champion. There wasn't much time for a hangover the Monday morning after I won it in Berlin because I had to catch a plane to Le Mans and switch my focus. Then when I went on holiday - given all the rumours about my future, it couldn't not get to me. The phone was ringing all the time.

So there hasn't been time off, but that's fine. I really love what I'm doing and I'm truly grateful. I also believe it makes me a better driver to race in different cars, in different championships and to work with different people. But I won't deny that I'm also looking forward to winter and some time off.



De Vries did



Compared to my titles in karting, Formula Renault and in FIA F2, success in Formula E felt very different. Not because it was less about climbing the single-seater ladder, but more because it was a very eventful season, and everyone experienced a lot of highs and lows. I'm realistic enough to understand that I could have easily been fifth or sixth. The classification is not directly reflective of everyone, but

"It was a very eventful season. I'm realistic enough to understand I could have easily been fifth or sixth"

championship, is testament to how hard we worked at the end of our debut 2019-20 season. We were already strong, but we did have some glitches. It was obviously our first season in the series, and we made too many mistakes. We were not entirely ready to take on a title fight. We reacted by doing a lot of winter testing and analysing, and we focused

on specific areas where we thought we needed to improve, and I think that approach has really paid off. It's why I believe the start of the season was crucial in the outcome, because it really made our point clear that we did our work – we are here to win and not to participate.

It's all about details in the end. I don't think there exists a key to success. All the little things must be in place to deliver with the package

it was well deserved for us. We did lead most of the year.

I must acknowledge that we had some luck on our side. And that it all came down to the final round in Berlin plays its part in why this title felt different. Most drivers are used to building championships as the year wears on. The qualifying format in Formula E makes that hard to do.

For example, after my two second places in the penultimate London event, we arrived in Berlin in the slowest first group in qualifying. And with Formula E it's like, 'Ah, man, you never know...' You just hope it's going to be good! The way the season had gone, you almost accept that you can't be consistent, you can't constantly score points. You accept the moment and move on. I definitely reached that point towards the end. It was easier for me to accept a bad weekend because I understood it was the nature of the championship and its format this season. To secure the title double, with Mercedes winning the teams'

that you have. We were not perfect, and we still have a lot of room for improvement. But I think we certainly kicked off very strong on that side at the first event in Saudi Arabia with pole position and the win. I want to thank everyone who has helped us win the two titles, particularly my team-mate Stoffel Vandoorne, because the working relationship has been really great. We get on very well together. Because of the title success, a lot of people have asked me about my future. I am sure on how I see my future, but ultimately you just don't know. Things in this world change so quickly. When I moved to Formula E after winning F2, that was not something I was prepared for. Not that I wasn't interested, but I couldn't have foreseen that career path. Ultimately, I'm a racing driver and I want to compete where the competition is the best and where it means the most. Depending on where that is, that's where I want to be.

IN ASSOCIATION WITH MODIS



IAN JAMES

HOW WE CREATED A WORLD TITLE-WINNING MENTALITY

he Mercedes-EQ Formula E team is such a young entity. But one of the advantages we had from the off was our connections with the wider Mercedes motorsport family with the grand prix team, High Performance Powertrains at Brixworth and HWA coming out of the DTM. It was perfect because you could cherry pick the best bits and bring it all together. When the personnel were chosen, we took everybody down to Lake Constance on the German-Austrian border for a couple of days. We



F1 wins since 2014

you can forge those relationships within the team that work together very well.

Then there's the other famous thing that's always spoken about within the Mercedes motorsport teams. We have this 'no blame' culture. It gives people the opportunity to know that they can push the boundaries and they can make mistakes. But there will be no fear of recrimination. It's as simple as that.

On our way to the 2021 Formula E teams' title, we did go through a mid-season dip in form. A lot of the reasons for this were of our own making. Although we started the

"Being more aggressive was doing more harm than good. We were pushing in the wrong areas"

season strongly, we knew we needed to continue pushing forward to have a chance of putting ourselves towards the top of the table. When we stuttered, we needed to take a step back and analyse why it was happening. It took a lot of work and time to realise that actually us being more aggressive in terms of chasing performance, especially in qualifying, was doing more harm than good. We were pushing too far in the wrong areas.

We had the confidence to wind that back to reset to where we'd been before and then use other performance differentiators to push forward again. That's where we

saw that we were able to come out of that dip and then regain the performance, which was crucial for the championship win. It's only through having that rigour and that discipline that you're able to really unpick where things are going wrong.

I look back to when I had my first foray into motorsport at HPP. In F1, we came out of the box in 2014 and we knew we had a pretty special powertrain on our hands. It struck me as a real sort of eureka moment when I realised that the euphoria you feel on the Sunday is tempered so quickly on the Monday morning when you're no longer focusing on the win. You're straight back into 'OK, what went wrong?' I remember sitting there and one of the first meetings that I took part in, virtually nobody was talking about the win after 30 seconds. We went back into this almost self-berating mode of focusing on the things that didn't go as planned that could in future develop into bigger issues. We've had the same approach now with the Formula E team. Everybody plays a role in those successes. But you can't get carried away. You have to realise that the next race is going to throw up the next challenge and you need to be super-clear on progressing. Formula E is a series designed to punish mistakes and there is no room for laziness or arrogance in any way, shape or form. As soon as you relax just a little bit then you'll start to fall backwards. But that's part of the beauty of the sport as well. It's what makes it exciting.

focused on what it meant to be a team and what we wanted to achieve, so everybody had a clear understanding of the common goal.

It was fascinating to see how people were genuinely feeling part of one team rather than feeling part of the entities that they'd come from. That was a real key moment that started us on this journey. It was the clarity of the goals and giving everyone some psychological safety. They knew they could move forward as a member of this team with the backing and support of their colleagues.

One of the really powerful exercises we did was to understand what your character traits are - both good and bad - and how that works together with your colleagues. Actually, what you shouldn't necessarily do in certain situations is look to just align with people who are very similar to you. Instead, find somebody that has the opposite traits. That provides a different perspective. Once you understand that,

Judius Bär

THE SILENT COUP

ARR Julius Bär ABB

By virtue of its F1 success, Mercedes was expected to rise to power in Formula E before long. That it's now the electric champion belies a tricky path to becoming the super-charger

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6 FORMULA E 25 NOVEMBER 2021





FORMULA E THE PATH TO SUCCESS



ercedes made a rod for its own back as the hybrid rules arrived in Formula 1. Bearing in mind the scale and sustained nature of its grand prix dominance, any subsequent factory motorsport effort – especially

one underpinned by High Performance Powertrains in Brixworth would be measured against this yardstick. Whether propelled by combustion or kilowatts, the Three-Pointed Star was expected to come up trumps. Formula E was a case in point.

Back in October 2016, when Toto Wolff announced Mercedes' intention to join the grid, the championship had positioned itself well. Formula E had survived economic fragility and a potential team walkout in its inaugural 2014–15 campaign, when co-founder Alejandro Agag was briefly sacked by his investors. It was just about navigating a tricky third year where races were never far from cancellation. But, above all, it had very successfully tapped into the automotive zeitgeist. Ever-tightening legislation and the emissions scandal meant OEMs an entry, and Formula E was never going to turn Mercedes away. The programme would fall under the stewardship of Wolff, and Ola Kallenius – Merc chairman and CEO – was hands-on in lining up Ian James as team principal.

James, formerly head of programme management at HPP, explains: "The interest was there because of Formula E's messaging, its global scale and because sustainability really was at the heart. It was a great showcase for the shift to electrification in these iconic city centres. At the time, it was very attractive."

The first challenge for James was to create a coherent structure. The race team would predominantly be made up of talent from the HWA DTM squad based in Affalterbach. The operations would span Brackley and Stuttgart, while the technical prowess nestled in Brixworth. In addition to that logistical challenge, he was tasked with making sure the Formula E team could work as a standalone business. James adds: "In the early days there was virtually no infrastructure, so it was quite a challenge. We had some great people and some great experience across the board. It just hadn't been brought together in one team."

Collateral damage came in the form of quitting the DTM, an end after three decades that would soon give the tin-top series an identity

Mercedes wanted to end its touring car tenure on a high, and backed

crisis. But that exit had to wait until the close of the 2018 season since

were banging at the door in their bid to align with the changing times. Daimler was among those to have its interest piqued. Marketing board member Britta Seeger led the push from Stuttgart to secure

MERCEDES TIMELINE -

4 OCTOBER 2016

Toto Wolff reveals that Mercedes has secured an entry into Formula E for the 2018-19 season, the latest in a line of major additions to the series.

8

24 JULY 2017

Mercedes says it will quit the DTM to take up its option to join Formula E as a works entry for 2019-20, a year later than initially stated.

30 NOVEMBER 2017

Venturi partners HWA for the 2017-18 Formula E season, with engineers from the Mercedes specialist embedded in the team.

9 MAY 2018

HWA announces an entry into Formula E for 2018-19, for which it will run as a customer team to the ZF-powered Venturi squad.

18 MAY 2018

Mercedes confirms that its Formula E programme will be supported by the F1 operation, with High Performance Powertrains designing the engine.

FORMULA E 25 NOVEMBER 2021

IN ASSOCIATION WITH MODIS





DTM (left) had to be sacrificed. Vandoorne and de Vries (above) hired to push team development forward

on Saturday night, half of them stuck around for the party, half of them jumped on a flight to Valencia. That week was hell. For the majority of the team, it was three hours' sleep every night for the duration of the test."

Although HWA ran a customer powertrain in a deal with Venturi Racing supplier ZF, the 2018-19 campaign was still more thoroughbred than mongrel. Tony Ross had left his post as Valtteri Bottas's race engineer, having won the

Gary Paffett to seal his second drivers' title for the marque. That came to fruition all while Mercedes, under the HWA Racelab banner, geared up for its battery bow. "That really was something unique," James says of the clash between the DTM title decider at Hockenheim and Formula E pre-season testing at Valencia. "The team won the DTM championship 2016 F1 title on the pitwall for Nico Rosberg, to join the Formula E team. It was the still the same crack engineering squad that had sealed the

DTM spoils. Franco Chiocchetti had been poached from Audi's successful Formula E operation, and Stoffel Vandoorne was rescued from his misery at McLaren in F1. Paffett made the electric switch >

8 OCTOBER 2018

HWA unveils the car and livery it'll use for one season, prior to the full Mercedes entry, and announces that Gary Paffett will lead the driver line-up.

14 OCTOBER 2018

Paffett wins his second DTM title in Mercedes' last race in the series before he and the crew jet immediately off to Valencia to start Formula E pre-season testing.

15 OCTOBER 2018

Ex-McLaren F1 driver Stoffel Vandoorne is signed to be Paffett's teammate. Ian James moves in as team principal and managing director.

25 NOVEMBER 2018

2016 F1 title winner Nico Rosberg's race engineer Tony Ross (right) embeds himself in the HWA team ahead of becoming chief race engineer for Mercedes.



FORMULA E THE PATH TO SUCCESS

also. Despite the inherent pedigree, life in Formula E was not about to get off to a smooth start.

Paffett, now an advisor and reserve driver for Mercedes, explains: "At Valencia, it did not feel like a superteam. It really did not. Wow, it was a baptism of fire. We had a lot of great ingredients, a lot of the engineers I had worked with in DTM, and they were fantastic.

"But none of us knew anything about Formula E. We had a couple of people within HWA that had been shadowing Venturi for a season just to try and learn the championship and see how it worked. But we were all new. At times, it was a complete mess. Just trying to make the first race was difficult. We were building something that could be great, but it was very difficult."

A critical issue was the carbon driveshaft used by ZF. It kept failing and dogged both HWA and Venturi. That was beyond the control of the teams, and meant the focus was on understanding the car set-up and adapting to the systems at the heart of the championship.

Paffett continues: "Transferrable knowledge was very limited. We all had to completely relearn what we knew from an engineering point of view and also from a driving point of view — just completely relearn how to go racing.

"Running the energy management system, that needed a lot of work that we never really understood. We were very much learning how FE works and even down to how many parts we needed. You start bashing into walls or each other and you start running out of parts.

"I remember after

Marrakech when me and Stoffel had a bit of a coming together, which was the worst thing that ever could have happened for the team. We were facing the prospect of not having enough parts to get the cars to the next race [in Santiago two weeks later]. It was really that close."

At the midpoint of the campaign, the momentum did begin to gather. Slippery conditions in Hong Kong allowed Vandoorne to top qualifying, while Paffett also progressed into the superpole dogfight. Vandoorne claimed the first podium in Rome and, while neither driver could repeat those heights, they both finished the final five races and found a degree of consistency that had been sorely lacking in the previous eight. Ninth of the 11 teams, one place behind Venturi, was the outcome in the final standings.

"It did start to feel like a team towards the end of the season," says Paffett, who would be dropped in favour of Nyck de Vries — a decision steered by Wolff and Mercedes chief strategist James Vowles. "There were certain times where we really looked very good, but then times where we looked very bad. It was just a bit rough around the edges. But the pace was becoming more consistent, and we were understanding the systems a bit more. Lots of things stopped us



Valencia test was a "baptism of fire", reckons Paffett (above), yet things had improved enough for Vandoorne to top qualifying in Hong Kong (left) Julius B

powertrain. Led by Mercedes ERS architect Pierre Godof, it was 18 months in the making. The customer relationship reversed, and Venturi took on the works engine to provide four cars' worth of data rather than two. De Vries was in alongside Vandoorne and — an aspect not to be overlooked — the race team had completed its beta season and was more accustomed to life in Formula E.

FANBOOST

James, who had attended every race in a background role while becoming acquainted with the "characters" in the paddock, says of the driver switcheroo: "One of the things that we were very conscious of was that we needed two drivers who could very much be part of the development process. We were always going to be on this steep learning curve.

"Both Stoffel and Nyck have been superb in that respect. Not only are they extremely talented and bloody quick, but they also have been instrumental in the development of the team. We've been fortunate enough to retain the services of Gary as well who has also been an asset."

Preparations for 2019-20 were far less hectic as gremlins were fewer and farther between. But the squad retained a genuine anxiety as to how it would fare as the season kicked off in Saudi Arabia. To their immediate relief, Vandoorne achieved a brace of podiums in the double-header. Not only did that surpass the humble benchmark set by HWA, but it also kept series newcomer and noisy hometown

from showing our potential. But over the off-season, a lot changed." The biggest change as HWA morphed into the fully fledged factory entry for 2019-20, aside from a silver livery, was the arrival of an HPP

MERCEDES TIMELINE (CONTINUED)

14 JULY 2019

HWA ends its campaign in ninth from 11 teams. Pole for Vandoorne in Hong Kong and a podium in Rome overcome persistent carbon driveshaft breaks.

11 SEPTEMBER 2019

Mercedes reveals its challenger and livery, while Nyck de Vries replaces Paffett after testing the car alongside Edoardo Mortara and Esteban Gutierrez.

15 NOVEMBER 2019

Paffett returns to the fold as reserve and development driver, before gaining the wide-ranging title of sporting and technical advisor to the team.

22 JULY 2020

In the latest big-name engineering move, former Arrows, Renault and Lotus F1 engineer Nick Chester (right) signs as technical director.



10 FORMULA E 25 NOVEMBER 2021



IN ASSOCIATION WITH MODIS

Mercedes triumphed at 2020 finale on home soil in Berlin



"We all had to completely relearn what we knew from an engineering point of view and also a driving point of view"

neighbour Porsche at arm's length.

De Vries proved a stellar addition to the grid, replicating the aggression and outright speed of his F1 compatriot Max Verstappen. But the electric rookie bore the brunt of Mercedes' lingering operational errors as it continued to find its feet. He copped 29s of penalties in Saudi, lost a podium in Chile to an over-cooled battery, and crashed out in Mexico with a software glitch. A power over-spike killed his chances in Marrakech and, after a five-month COVID hiatus, a full car shutdown scuppered his early Berlin hopes.

But in scenes reminiscent of the tail end of the 2015 F1 season, when Rosberg won the final three races of the term to tee up his run to the title the following year, Mercedes fired its warning shot. For the last

race of the interrupted 2019-20 season in the German capital, Vandoorne led his team-mate to a comfortable 1-2.

Off-track, however, there was cause to check the optimism over the winter break. Throughout the spring of 2020, the Formula E programme had been suspended while Brixworth was repurposed to help manufacture breathing aids during the first peak of the pandemic. The decision to press on and still introduce a new powertrain was not to be underestimated.

James recalls: "We looked at each other in the whites of the eyes and said, 'What do we really want to start with?'"

The team took a"massive risk" when it answered that question, with Mercedes hastening the arrival of its Silver Arrow 02 machine and

Drivers' and teams' championships mean an extra-loud cheer for the celebratory photo

its heavily reworked evolution of the Gen2 engine. This decisive call to persevere paid dividends when de Vries dominated the opener in Saudi, Vandoorne triumphed in Rome, and de Vries completed a hat-trick from the first three rounds at Valencia.

Over-ambition crept in as Mercedes chased qualifying gains to no good effect and inspired a mid-season slump. But that didn't keep the beast down for long, with the rewards arriving in the final race of the campaign. The squad wrapped up the teams' crown on home soil in Berlin in August, while de Vries completed a title double.

Three years, three months and three weeks after work had begun on the first all-electric



powertrain, HPP and Mercedes delivered on the expectation borne out of its F1 success to establish itself as the battery benchmark.

13 AUGUST 2020

Mercedes clinches its first pole and win as a works team thanks to Vandoorne in Berlin. For the final race of the season, he leads de Vriesto a 1-2.

26 FEBRUARY 2021

De Vries make Formula E history in the opening race of the term in Saudi Arabia. He tops every practice and qualifying session before winning the race at a canter.

27 FEBRUARY 2021

A day later, Mercedes is banned from qualifying as the FIA seeks confirmation that it has resolved a brake software issue that caused Mortara to crash into a wall.

15 AUGUST 2021

Mercedes clinches the Formula Etitle double. De Vries wraps up the first drivers' world crown with eighth, and Vandoorne delivers third place.

18 AUGUST 2021

After delaying its agreement to the Gen3 regulations, Mercedes confirms it will quit Formula Eat the end of the 2022 season.

FORMULA E SNAPSHOT





2021 LONDON E-PRIX

The exhibition hall lights of the ExCeL Centre glance off the Silver Arrow 02 driven by Nyck de Vries as Formula E returns to London with this novel part-indoor circuit. It's this July double-header weekend that arrests Mercedes' mid-season dip in form, brought on by chasing qualifying gains at a cost of race pace. By effectively reverting to a previous car set-up, the team gets back to the front as the Dutch racer grabs a brace of second places to retake a championship lead he will eventually convert into the 2021 drivers' title.

12 FORMULA E 25 NOVEMBER 2021

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MERCEDES' FACTORY FORMULA E RECORD 26 5 4 7 5 5 115 1583 328 PODIUMS FASTEST LAPS LAPS LED 1583 328 POINTS

25 NOVEMBER 2021 FORMULA E 13

FORMULA E TECH FOCUS

UNPLUGGED AND UNWRAPPED

Under the skin of the Gen2 Formula E machine

JAKE BOXALL-LEGGE

ormula E's second-generation car moved the series on significantly. Aside from its striking looks, unlike anything seen before in single-seater racing, it featured a more powerful motor unit and larger battery capacity. Here's the lowdown on what the Gen2 car has in its pocket ahead of its final season of service.

BODYKIT

14

When Formula E switched from its F1-light Gen1 machine to the flight-of-fancy Gen2 model in 2018, the car design turned heads — and successfully branded the all-electric series with its own identity. that's the key point of the aero package: sure, it has to keep the car on the road, but it was conceived to enable good racing and improve the energy efficiency.

Like other FIA championships, the car also features the halo head protection device, with a set of lights mounted on it to indicate if the car is in Attack Mode (235kW) or running at full 250kW power.

POWERTRAIN

Over Formula E's existence as a racing championship, the number of gears has fallen drastically. All teams once ran a five-speed

The front wheels have proper covers, which link into the simple front wing design that can be adjusted depending on the downforce required for each circuit. The rear of the wheel cover feeds into a bargeboard-like device, which is important to limit any drag produced by the fronts. The rest of the bodywork continues that deviation from a typical single-seater design, with the X-wingstyle rear winglets kept intentionally small to ensure the diffuser generates the bulk of the downforce, ensuring that the cars can race closely together. And

FORMULA E 25 NOVEMBER 2021





Hewland gearbox, but now everybody uses a single drive gear with one reverse gear available. Given that the torque from the motor is so high across the full range of speeds, the all-electric cars simply outgrew the need for more than one gear.

Motors have a maximum output of 250kW and have also converged into a single motor unit that drives the gearbox. This is by design, because the championship wanted to clamp down on any loopholes arising from any teams running a twin-motor package. The motor must work two ways to provide the drive to the car, but also regenerate under braking to top up the battery.

Formula E mandates that the gearbox may only drive a single differential, eliminating the chance of teams employing torque



vectoring where each wheel can be turned independently.

BATTERY AND INVERTER

Although the motors can be developed by each team, the battery is a single-spec component — every team has its batteries provided by McLaren Applied. The battery stores 54kWh of usable energy almost double that of the Gen1 battery supplied by Williams and this removed the mandatory car-swap element of the previous-generation Formula E races.

Output from the battery is in DC current, but this must be transferred to AC current to allow the motor to turn. The inverter is the middle man in this relationship, converting from DC to AC to drive the car with the use of a semi-conductor – and vice versa during the regen phase.

All-weather Michelin tyres replicate those used on roads

TYRES

Every team is supplied with Michelin's all-weather Pilot Sport tyre, which is treaded to ensure that the cars can be raced in wet and dry conditions on one set. Michelin has supplied the control tyre since Formula E's inception, with an 18-inch rim diameter to better replicate those used on road cars. Since teams could only use one set for the full race weekend during the 2021 campaign, they are particularly durable at the cost of grip, meaning the car is trickier to handle than with a slick tyre.

THE VENTURI EFFECT

Sharing data with a competitive customer team played a crucial role in Mercedes gaining a performance edge in 2021

MATT KEW



he 2021 Formula E season was just 27 hours old when Nyck de Vries made series history. By topping both practice sessions in Saudi Arabia, heading group qualifying before romping to pole, leading every lap on his way to victory and snaring fastest lap, he became the first driver to complete a total clean sweep. With Edoardo Mortara crossing the line in second aboard his Venturi Racing car – the pair eventually ranked 1-2 in the final standings 14 races later - a clear warning shot had been fired. Mercedes had told its rivals that the Brixworth-based High Performance Powertrains site had developed one hell of an electric engine.

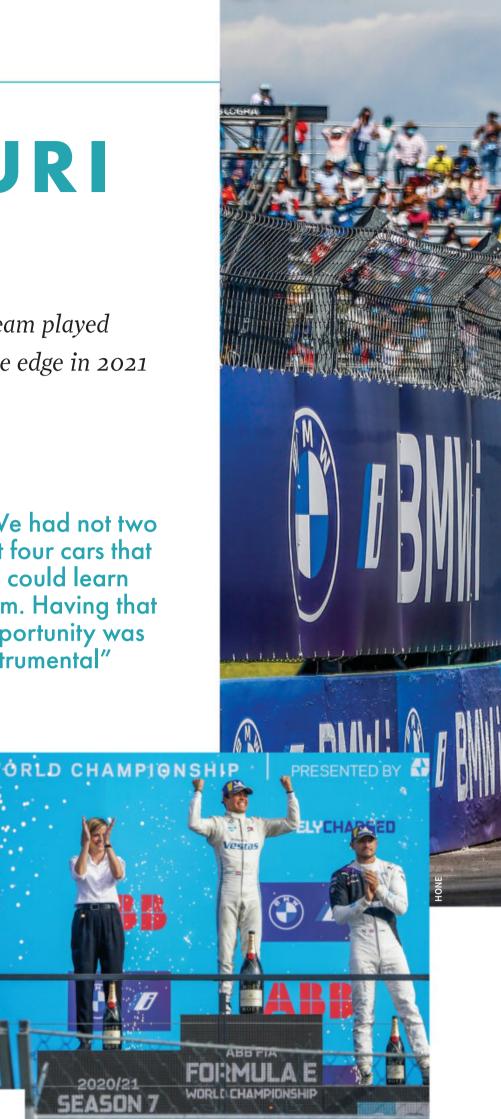
By virtue of being a customer of Mercedes, gaining the same powertrain hardware, it's easy to think that Venturi was hanging onto the coat tails of its factory donor. But the relationship traces its roots back to 2018-19, when in fact the inverse was closer to the truth. It was the Monegasque squad that brokered the deal for its then technical partner ZF to supply its kit to the inbound HWA Racelab team, a thinly veiled precursor to the works Mercedes attack.

Mercedes motorsport boss Toto Wolff explains to Autosport: "Susie [Venturi team principal and Wolff's wife] agreed for the ZF powertrain to be utilised in the HWA entry in 2018-19. She opened the books in terms of a joint learning process. She wasn't obliged to do that and without her OK to the ZF supply, we probably wouldn't have had such a smooth entry. It was a smart move started by her."

That season was blighted by carbonfibre driveshaft unreliability across both teams, but it served a purpose in allowing Mercedes to adapt to the cut and thrust of Formula E, while behind closed doors the R&D arm of HPP was in full swing ahead of the Silver Arrow 01 machine debuting for 2019-20.

From this point on, Mercedes would supply Venturi. For what might be regarded as a premature

"We had not two but four cars that we could learn from. Having that opportunity was instrumental"



Susie Wolff's team played key role in de Vries's title glory

move, given the Stuttgart manufacturer was still finding its operational feet, team principal Ian James offers his defence. "It was a no-brainer," he says. "We had not two but four cars that we could learn from. That was going to be crucial because the rate of development is directly proportional to the data that you're bringing in. Knowing that we needed to accelerate our learning as quickly as possible, having that opportunity was instrumental. It was always going to be an asset to have that partnership. So as soon as we knew that we had the opportunity, there was never any question as to whether that was going to be something we were going to go forward with." This explains also why Mercedes, in addition to the mandated supply of its hardware, decided to grace Venturi with its regular software updates in timely fashion, rather than guarantee itself a

competitive edge over at least one team on every occasion by keeping its cards closer to its chest.

"In theory, you have an opportunity to deviate as you go through the season," continues James." The reality of it is that because of the complexity of Formula E, it means you need to really reduce the distractions to a minimum. For that reason, it made absolutely no sense to run different standards from a software perspective across the two teams." By doubling the data that it could review for every lap with four cars rather than two, it meant Mercedes, and by extension Venturi, could more quickly identify any deficits or why one car was performing better than the others, and then revert to the optimum set-up. "Nobody really wants to share," says Wolff. "We've proven against a lot of resistance that working together within the framework of the

IN ASSOCIATION WITH MODIS



There are limits to how often Mercedes and Venturi engineers convene to analyse the granular details. They remain political allies but on-track competitors after all. But there's an open dialogue and a shared and vested interest to turn up each weekend with the fastest car. Edoardo Mortara took his Venturi entry to second in points with Mercedes power

Venturi used a ZF powertrain in 2018-19 and allowed HWA to share the same source, helping the team focus on The crowning glory of the partnership thus far arrived in Berlin on 15 August. De Vries clinched the drivers' world championship ahead of Mortara. The Italian's startline shunt, when he careered unsighted into the stationary Jaguar of Mitch Evans, denied onlookers the chance to see how the two teams would interact as their drivers scrapped for position when title honours were on the line. Nevertheless, the success in the points proved the merit of a customer relationship.

Perhaps the most interesting chapter is one that's yet to transpire. With Mercedes poised to quit Formula E at the end of the 2022



ICHARD MILLE

campaign, Venturi must form a close alliance with another powertrain provider. Similarly, if the Wolff and James-led bid to find new investment for what will remain of the works race team comes to pass, they'll need to secure an engine of their own in time for the advent of the more powerful Gen3 era. The teams might not be bedfellows for much longer. But the rapid rise of their partnership from eighth (Venturi) and ninth (HWA) in 2018-19 to winning a third of all races last year is emphatic proof that the customer model in Formula E works — something its FIA architects are immensely keen to promote.

25 NOVEMBER 2021 FORMULA E 17

FORMULA E

IN ASSOCIATION WITH MODIS

how to be an ace engineer ALBERT LAU

atching motorsport was a "hobby" for Albert Lau, the race engineer whose calming Californian tones over team radio helped guide Nyck de Vries to the 2021 Formula E title. But a career in racing was not top of the agenda when he studied at the University of California prior to a masters at Stanford. Initially the aerospace industry piqued his interest until a brief stint at Boeing in the early 2000s, where he was involved in developing a reusable launch vehicle as an effective replacement for the Space Shuttle programme, came to define the next two decades of his life.

"I was speaking to my boss one day and said, 'You must have done some cool projects. Can you tell me about them?'" reflects Lau. "He reckoned in 30 years he'd been on two really good ones. That flicked the switch for me because I realised the product cycles in aerospace are massively long. I wanted something more fast-paced."

That led Lau across the Atlantic for a motorsport engineering masters at Brunel University, which preceded stints as an assistant race engineer for Team GB in A1GP and then in British Formula 3. But a switch to the British Touring Car Championship paddock at West Surrey Racing would have a far greater influence on Lau as he worked under team founder Dick Bennetts. The Kiwi, and the late Schnitzer boss Charly Lamm, would be defining role models.

"Dickie taught me how to be a race engineer," says Lau. "He loves the minutiae of race engineering. He's got set-up sheets and binders from all over the years. He and Lamm, the team bosses' team boss, they understand the grind that's involved in being successful, that details matter. That permeates through. To learn that at the first stop in my career was so important."

After a DTM initiation with Schnitzer, Lau switched to HWA for 2016 to run Edoardo Mortara. At this point, he stresses the need to never become overly close with a driver should there be a time when you need to carry respect to get them to address performance deficits.

With HWA's move into Formula E for 2018-19, Lau was back to



The late Charly Lamm was a big influence on Lau



de Vries to the 2021 Formula E world crown

open-wheel competition, where he has remained. "One of my first chief engineers, he said, 'I don't care what kind of car it is, it's all about putting the right amount of load on the right tyre at the right time,'" he continues. "That doesn't matter what kind of car you have. But it's been really good to be able to go through the whole spectrum of touring cars to single-seaters."

Lau reckons the software race in Formula E makes it the "engineer's playground". The number of spec components also allows him to have more of an overview of the whole car, rather than focus on one area as he might do if he was a cog in a much larger F1 machine. "You don't need to wait for a new part — you can much more quickly write new code to develop the brakes and so on. Formula E is just a different animal".

Reflecting on the success of his 2021 season, Lau reckons a key aspect has been how Mercedes prepares for every eventuality, with that paying dividends at Valencia. De Vries won when so many of his rivals ran out of usable energy.

"I take a lot of pride in our process of engineering the car and driver," says Lau. "We cover a lot of different scenarios in our pre-event work.

during his time working in DTM I'm massively proud of the guys in terms of how they prepare their tools to make sure we are in the position to maximise what we have."

LAU'S TOP TIPS

Get involved, no matter what level the series is. Opportunities are always there if you've got the desire and right attitude. Learn things you just can't in a classroom. Get your hands dirty. You might have to make the tea and wash the trucks but the team will see your passion. They'll leverage you're in engineering and from that, you will get to look at data. Be persistent and don't be afraid to ask questions. You might catch someone on a bad day, but that doesn't mean you shouldn't ask them for an opportunity again at the right time.

18 FORMULA E 25 NOVEMBER 2021

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