Brit success Bird, Sims and Tandy storm to wins

AUTOSPORT

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28 NOVEMBER 2019

OUR VERDICT

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ON THE BIGGEST

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The dawning of a new age for Formula 1?

The Formula 1 World Championship has been wrapped up in favour of Lewis Hamilton for quite a while; ditto the current constructors' contest for Mercedes. The Brazilian Grand Prix has just given us a classic race around the beautiful contours of the Interlagos circuit. And now the F1 teams trudge off to Abu Dhabi for the 2019 season finale at a venue that rarely offers much in the way of a spectacle.

What's the solution, aside from moving the finale somewhere else (as Edd Straw suggests on page 11)?

F1 is hoping that the new rules for 2021 are the answer. New ground-effect-based aero is aimed at making passing easier, even at the more tricky circuits, while a cost cap and various other restrictions are intended to help other teams challenge the Big Three, as well as curb F1's excessive spending.

So will it all work? That's the question Straw and our technical expert Jake Boxall-Legge attempt to answer on p16. One thing is for sure: more research and effort has gone into formulating these regulations than any other ruleset in F1 history.

Aston Martin is also looking to the future by helping to promote young British talent, which is one of the reasons behind it joining us in the Aston Martin Autosport BRDC Young Driver of the Year Award. Aston Martin president and group CEO Andy Palmer tells us more on p24, while factory driver Darren Turner explains how the Award was crucial in helping him become a professional racer.

Three Award graduates -a winner and two finalists -a lso scored big successes last weekend. Alexander Sims and Sam Bird topped the frantic Formula E races (p28), while 2015 Le Mans victor Nick Tandy was part of the winning Porsche line-up in the revived Kyalami 9 Hours. Read about that on p7.



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NEXT WEEK 5 DECEMBER

Who will go into the F1 winter break on top? Plus our search for the next star

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SUTTON SWITCHES TEAMS TO RACE BTCC INFINITI

ADRIAN



British Touring Car Championship star Ash Sutton is to join an expanded two-car Laser Tools Racing squad to campaign an Infiniti Q50 in 2020.

Sutton, who took the 2017 BTCC title in a BMR Racing Subaru Levorg, will race a Q50 that is currently in build and will team up with three-time race winner Aiden Moffat. The design and build of the cars is expected to be finished by mid-February, before an extensive pre-season testing programme. Sutton will continue to work with his engineer from BMR, Antonio Carrozza, as well as his number one mechanic from 2019.

Laser Tools Racing reintroduced the rear-wheel-drive

my comfort zone, and with running a rear-wheel-drive car for the past three years I feel that we can roll over a lot that we've learned onto the Infiniti."

motorsport IMAGES

Sutton added that he had been encouraged by the mid-season test in the car: "All of the ingredients are there and that was even more apparent when you look at Aiden's run of results towards the end of the 2019 season. And what we've actually got going on behind the scenes is very exciting — I haven't had this excitement since 2017. It's giving me butterflies! We've got a lot to look forward to, the car has got a lot of potential and I think between the pair of us we're going to extract some good performance out of it."

Sutton is managed by BMR boss Warren Scott, who

NEWS • DEBATE • CONTROVERSY • OPINION • FEEDBACK

Infiniti to the BTCC at the halfway point of the 2019 campaign to replace its Mercedes A-Class. The car was originally raced by the Support Our Paras team in 2015 before the squad withdrew 12 months later. With the Infiniti, Moffat took a second place at the penultimate round of the season at Silverstone.

Sutton tested the Infiniti at Snetterton in the middle of the season to offer some pointers on set-up, and the fresh machines will incorporate the lessons learned over the latter part of 2019. Team principal Bob Moffat father of Aiden — says there will be upgrades to the centre of gravity and the stiffness of the chassis.

"I'm really looking forward to getting behind the wheel of the Infiniti," said Sutton. "Rear-wheel drive is will retain control of the 14-time race winner's contract. The plans for BMR, which no longer runs the factory Subaru effort in the BTCC, are yet to be announced.

Aiden Moffat has contested the BTCC since 2013 and has operated in a one-car team since his debut. The 23-year-old Scot said that he was keen to begin the work towards his 2020 campaign.

"I'm particularly looking forward to working with my new team-mate," said Moffat. "For me, Ash is one of the best drivers on the grid and I'll have my work cut out trying to keep up. But Ash is also a friend of mine and he's someone I can work with. We can work together and bring the best out in each other."

MATT JAMES

FIA tweaks fuel-flow **rule for 2020**

FORMULA 1

Formula 1 teams will be required to run a second fuel-flow sensor next season as the FIA intensifies its efforts to prevent the rules being exploited.

Presently, all cars must be fitted with a single FIA fuel-flow sensor, located within the fuel tank, which may only be used as specified by the FIA. This ensures the maximum fuel flow rate is restricted to 100kg/h, and the rules state that "any device, system or procedure the purpose and/or effect of which is to increase the flow rate or to store and recycle fuel after the measurement point is prohibited".

The command for an additional sensor next year completes a trio of recent FIA technical directives, the first related specifically to fuel flow, that have related to the potential exploitation of the rules for performance gains, and been issued amid



major scrutiny over Ferrari's engine.

Red Bull had contacted the FIA to raise three specific scenarios relating to the exploitation of fuel-flow restrictions by briefly exceeding the 100kg/h limit between the FIA's measuring points.

Ferrari has consistently denied any wrongdoing, emphatically dismissing suggestions that its drop in performance in the United States GP and Brazilian GP were related to the FIA directives. **SCOTT MITCHELL**



'Oval' banking for Dutch GP return

FORMULA 1

half metres. That's considerable. We are in fact

BUTTON GETS STRANDED IN MEXICAN DESERT

BAJA 1000

Jenson Button claims he spent 17 hours stranded in the desert during his off-road debut, after his truck's differential broke in last weekend's Baja 1000. The 2009 Formula 1 world champion was contesting the Mexican classic in a spec Trophy Truck before he hit trouble.

"We come away from the Baja 1000 with a story to tell, not the one we wanted but a great Baja story all the same," Button said on Instagram. "[We] started well, passed five moving trucks and then another seven/eight broken or crashed, found a really good rhythm of looking after the truck when needed and hammering the fast flowing sections. At mile 235 Terry Madden my co-driver and I heard a really loud clatter and lost drive, we had broken the differential."

Button said the breakdown was peculiar because "all temps were good" and that he and Madden had taken care of the truck, but added "this happens".

"The problem was we had found the most remote place to break down, which meant we spent the whole night and a total of 17 hours under the stars," he continued. "The only people we saw were other racers asking us to wipe their dirty light bars clean. Fuelled by energy bars and a fire that needed constant help as all we could find was twigs, Terry and I could just enjoy the moment of peacefulness by telling stories which always ended with 'it's Baja'. A life experience but not the one I expected. But I'll take it."

IndyCar star Alexander Rossi also contested the race, and led before a minor roll set him back. **JACK BENYON**

Zandvoort has revealed that the banking at its final corner will be twice as steep as turns at Indianapolis following modifications for its return to the Formula 1 calendar in 2020.

The revival of the Dutch Grand Prix means Zandvoort's final corner will be angled at 32% - the equivalent of 18 degrees. At Indianapolis the banking is at approximately nine degrees. Zandvoort CEO Robert van Overdijk told radio station BNR Nieuwsradio: "That corner will for sure be the most spectacular part of our renewed circuit. The difference in height from the bottom of the corner to the top will be around four and a

making an American corner on an otherwise European circuit. That is absolutely unique." The famous Hugenholtzbocht will also be tweaked. "The third corner [Hugenholtz] of the track will be banked as well for the F1 race," added van Overdijk. "It will be made parabolic, so that two cars can get through the corner next to each other and more importantly at the same speed. The banking will vary between 8% and 18% for that purpose." Van Overdijk said that there were no concerns about being so bold in adjusting Zandvoort's famous corners at the expense of tradition. **RONALD VORDING AND JONATHAN NOBLE**





How did the German giants *really* do on their FE debut?

FORMULA E

After all the time, announcements and headlines had passed, it finally happened: Mercedes and Porsche entered Formula E at last weekend's 2019-20 season opener in Diriyah – and both scored podium finishes.

Mercedes even ended the weekend in front in the teams' championship, by two points over Envision Virgin Racing. Its other headline stats from Diriyah were Stoffel Vandoorne's pair of third places, its second and third grid spots for race one, and Nyck de Vries scoring eight points on his debut (and losing six more due to his race-two safety-car overtaking error).

That's pretty good going, no matter how you slice it. By not taking two poles and two wins, as its F1 team would likely have done in the same season-opening circumstances, Mercedes has highlighted FE's close competition, and it has slotted into the fray right away.

"We didn't expect it at all," said team principal Ian James. "But now we do know that we've got at least a strong, competitive package." in race two both drivers came forward, although the pair of safety cars helped.

Still, an impressive debut from Mercedes, which can be included among the frontrunners from the off.

Porsche is harder to place. Like Mercedes, it scored a debut podium, with Andre Lotterer beating Vandoorne to second in race one. While Mercedes had been predicted to shine in qualifying and then did better than forecast in the race, Lotterer's performance was rather unexpected.

He scored an impressive seventh place start from a qualifying slot in group two, and rose up the order in a fashion not too dissimilar to his previous days with DS Techeetah. In the second race, he moved from 10th to finish sixth before being dumped out of the points by a safety-car penalty. This shows that Porsche's package is fundamentally sound.

"P2 for the first race is great — I don't know if anyone expected that," said Lotterer. "Relatively, it would have been a top 10 maybe [that he was expecting]. But the podium was nice."

But what makes Porsche's performance more difficult to assess is Neel Jani not matching his teammate. He admitted to "some starting issues with energy and lap target" after the first race, and it certainly looked as if the gap was more driver-adaptation related, given Lotterer's results. So, a successful debut for Porsche, but one it will need to back up before firm conclusions can be drawn on its Formula E form. ALEX KALINAUCKAS

It's done: Ogier is at Toyota

WORLD RALLY CHAMPIONSHIP

Six-time World Rally champion Sebastien Ogier will join ex-M-Sport loyalist Elfyn Evans and teenaged newboy Kalle Rovanpera in Toyota's all-new World Rally Championship squad for 2020.

Delayed from Monday, Toyota finally got around to telling the world yesterday (Wednesday) that Kris Meeke and Jari-Matti Latvala will follow Hyundaibound 2019 champion Ott Tanak through the door marked 'maastalahto' at its Finnish HQ, while Ogier, Evans and Rovanpera walk in the opposite direction.

Ogier's move came after his early departure from a two-year Citroen contract last week, while Evans leaves M-Sport after seven years, and 19-yearold Rovanpera steps up from success with Skoda's WRC 2 Pro campaign.

"I'm definitely very excited to be joining this team," said Ogier, for whom Toyota is a fourth new employer in five years. "I'm overwhelmed to start working with such an iconic brand as Toyota as well as my childhood idol Tommi Makinen [team boss]. I know Elfyn very well and I'm sure he can bring a lot to the team too, while Kalle has proven many things already in rallying.

"All three of us are new to the team, so it's going to be challenging to learn the car and everything, but we'll do our best to perform as quickly as possible."

For Evans, Monte Carlo next year will be the first time he's started a WRC round in a car without a Blue Oval on the front. For Rovanpera, reality bites: "But it's great to see that Tommi is trusting me."

Makinen reflected on what he sees as a "balanced" driver line-up, while the only hope for Latvala and Meeke is to battle six other rivals for a single seat at M-Sport. DAVID EVANS

P13 OPINION

There are some caveats to apply to Mercedes' results. It's high race-one grid spots were undoubtedly boosted by its cars running in the beneficial later qualifying groups as the very low-grip track rubbered in — and the team acknowledges the track evolution went in its favour. In that same race, Virgin's Sam Bird displayed an efficiency advantage and attackmode strategy that enabled him to win from behind the Mercedes pair. Vandoorne also lost second place to poor attack-mode tactics. But

P28 FORMULA EACTION



PIT + PADDOCK



Tandy takes flag as Olsen wins title for Porsche

KYALAMI 9 HOURS

Nick Tandy played a major part in Porsche winning the revived Kyalami 9 Hours last Saturday, as co-driver Dennis Olsen clinched the Intercontinental GT Challenge title following heartbreak for Mercedes GT₃ talisman Maximilian Buhk.

Tandy pranged the Frikadelli Racing 911 GT₃-R in his qualifying session, but he had done enough along with co-drivers Olsen and Mathieu Jaminet to make it into the top-10 shootout, and then the Briton planted the car on pole in the wet. But pre-weekend points leader Buhk was looking good for the crown, with the GruppeM Racing AMG GT₃ – also handled by Raffaele Marciello and Maro Engel – starting from third on the grid. drivers in with a chance of the title. Chief among these was Maximilian Gotz, who had arrived at Kyalami just six points adrift of Buhk — and four ahead of Olsen — and was sharing the SPS Mercedes with Yelmer Buurman and Luca Stolz.

An early pitstop to remove debris from the SPS Merc's radiator put the car out of sequence with the leaders, but the trio remained very much in contention. The race, however, seemed in control of the GPX Racing Porsche of Kevin Estre, Richard Lietz and Michael Christensen for much of the distance. While Olsen led the first 18 laps in the Frikadelli car, Estre then took over at the front. Jordan Pepper headed the field during the second stint on his home track in his M-Sport Bentley Continental, before the GPX 911 regained the front.

With two and a half hours remaining, a T lightning storm led to a suspension of the Li race, and it resumed with just 25 minutes JU

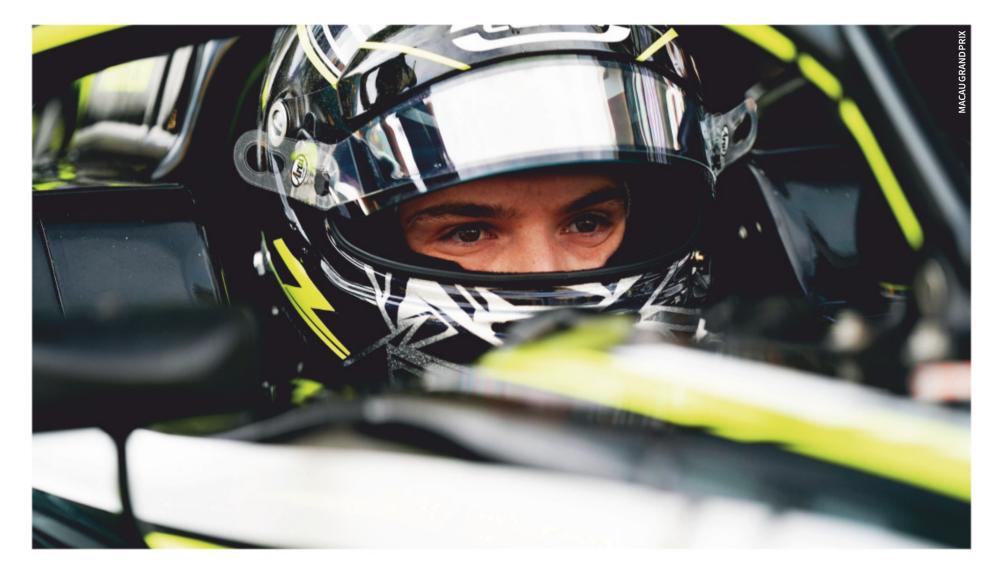
left on the clock. Buurman resumed in front, meaning co-driver Gotz looked ideally placed to wrest the crown, but within one lap of the restart he had been demoted by Lietz, Tandy and the Walkenhorst Motorsport BMW in the hands of Nicky Catsburg.

Lietz played the team game, letting Tandy past in order for Norwegian Olsen to seal the IGTC title, while Catsburg also managed to squeeze his M6 GT₃ – which he shared with Mikkel Jensen and Christian Krognes – ahead of Lietz into second. Tandy beat Catsburg to the line by 6.745 seconds to win the first Kyalami 9 Hours since Jacky Ickx and Jochen Mass took their Porsche 956 to victory in 1982, while Lietz finished third.

Fourth went to the Land Motorsport Audi of Markus Winkelhock, Christopher Mies and Christopher Haase, with Buurman fifth. The KCMG Nissan of Oliver Jarvis, Edoardo Liberati and Alexandre Imperatori was sixth. JURGEN STIFTSCHRAUBE

Sadly for Buhk, the Mercedes ground to a halt on the opening lap with engine problems, but still there were six more





Ticktum set for F2 as he plots route back to F1

FORMULA 2

Ex-Red Bull protege Dan Ticktum says he has had interest from multiple Formula 1 teams about joining a junior programme, and is strongly tipped to return to Europe to race in Formula 2 next season.

Two-time Macau Grand Prix winner Ticktum was dropped by Red Bull in June following a difficult start to his campaign in Japan's Super Formula series, and is expected to race in F2 for DAMS - for which he competed in some GP3 Series rounds in 2017 – alongside series veteran Sean Gelael.

"We've got something sorted [for next

year], I can't go into more detail than that," Ticktum told Autosport. "F1 is the end goal. I've been like that since I started going down the single-seater route.

"I've had interest from a few people and a few teams [in F1]. They're all saying more or less the same thing, which is go and prove yourself in what I'll be doing next year. Hopefully if I have a good year next year I think that will open a lot of doors. Even Red Bull's, who knows?"

The Ferrari Driver Academy looks set to have no fewer than five drivers in F2 next season, with a number due to be announced this week. Prema Racing is expected to

retain Mick Schumacher and add FIA Formula 3 champion Robert Shwartzman to its line-up in an all-Ferrari pairing, while FIA F3 runner-up Marcus Armstrong will jump into the hot seat at ART Grand Prix, which has taken George Russell and Nyck de Vries to title success in 2018 and 2019.

Callum Ilott is looking set for a switch from the Charouz-run Sauber Junior Team to Virtuosi Racing alongside Renault F1-backed Guan Yu Zhou. Giuliano Alesi is expected to join HWA alongside Artem Markelov, who was announced at the team last week for a sixth full season in GP2/F2. **JACK BENYON**

Bourdais loses IndyCar ride, and goes to IMSA

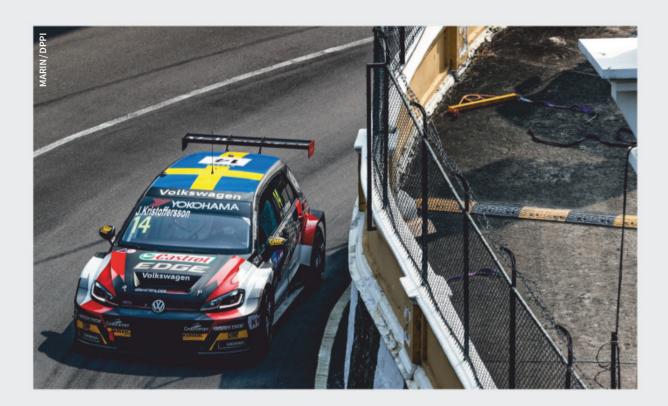
sidelines. "Letting Sebastien alongside IMSA veteran Joao

Four-time Champ Car title winner Sebastien Bourdais has lost his Dale Coyne Racing IndyCar Series ride and will instead compete in the IMSA SportsCar Championship in 2020. The 40-year-old Frenchman has raced for Coyne for three seasons, but the collapse of a proposed sponsorship deal has forced him onto the IndyCar

go is sad and it's got nothing to do with other drivers on the market or anything like that," Dale Coyne told Autosport. "It's very unfortunate. It's due to a funding issue. Something big fell through about two and a half weeks ago. He's a victim of circumstances that were largely out of our control." Bourdais has joined the JDC-Miller Motorsport team to race a Cadillac DPi

Barbosa under the backing of Mustang Sampling, which, like Barbosa, was cut loose from Action Express Racing as it slimmed down to one Cadillac for 2020. Bourdais had been left without a drive in IMSA's enduros following the end of the Ford GT programme. Joining the JDC-Miller car for the enduros will be Audi DTM racer Loic Duval. **DAVID MALSHER**





VW quits all petrol motorsport

WORLD TOURING CAR CUP

Volkswagen has dropped a bombshell by ending its works support of all programmes using internal combustion engines in favour of an electric-only approach.

The announcement came a matter of days after Volkswagen completed its latest test with a new version of its Golf GTI TCR car, eligible for the World Touring Car Cup, and which was due to be introduced in the spring or summer of 2020. A spokesperson confirmed this project has been scrapped, and development will not be handed over to a private company. Production of the current Golf will cease at the end of 2019.

"Electric mobility offers enormous development potential, and in this regard motorsport can be a trailblazer: on the one hand, it serves as a dynamic laboratory for the development of future production cars and, on the other, as a convincing marketing platform to inspire people even more towards electric mobility," said Volkswagen Motorsport director Sven Smeets.

While the decision means Volkswagen's technical alliance with Sebastien Loeb Racing in the World Touring Car Cup (WTCR) will end, it does not appear to 'petrol' programmes within the Volkswagen Group, including Audi's participation in the DTM, Porsche's factory World Endurance Championship and IMSA SportsCar GTE efforts, and numerous GT (with Audi, Bentley, Lamborghini and Porsche) and tin-top customer-racing programmes.

The ID.R prototype, which holds outright hillclimb records at Pikes Peak, Goodwood and on the Tianmen Mountain, will become an increasingly significant "technological pioneer" for VW, while the manufacturer said it will work on new projects for its ID. family of electric cars.

Smeets told Autosport at last month's Suzuka WTCR round that VW was "looking at" the E TCR concept that is due to launch in 2020 and is keeping tabs on World Rallycross, which he said "becomes interesting when it's full electric".

"There's a lot of movement, and so it's very difficult to say, 'OK, I'm going that way,'" he said. "What we know is that we will not go into Formula E! With Audi and Porsche there are more than enough brands from our group that are represented."

The Polo GTI R5 rally car will continue to be produced for customers, but VW will not offer factory-backed entries.

IN THE HEADLINES

LUNDGAARD'S F2 DEBUT

Renault F1 junior Christian Lundgaard will make his Formula 2 debut in this weekend's finale at Yas Marina. The Dane, sixth in this year's FIA Formula 3 Championship and fourth in the recent Macau Grand Prix, will replace the cash-strapped Ralph Boschung at Trident.

CARLIN LOSES ALMS WIN

Carlin lost its first on-the-road LMP2 victory to a penalty in last weekend's Asian Le Mans Series opener at Shanghai. Harry Tincknell had passed the Algarve Pro Racing-run G-Drive ORECA (dubbed an Aurus) of Roman Rusinov on the final lap to apparently take the spoils in the Carlin Dallara he shared with Ben Barnicoat and Jack Manchester. But Barnicoat had exceeded his driving time by a hefty 6m36s, meaning a three-lap penalty and demotion to third. Rusinov, Leonard Hoogenboom and James French were declared winners, with Roberto Merhi, Nick Foster and Aidan Read second in a Eurasia Ligier. Nigel Moore claimed LMP3 honours with Martin Hippe in their Inter Europol Ligier, while Ross Gunn was on the driving strength of the GT-winning D'station Aston Martin.

STANAWAY HANGS UP HAT

Ex-GP3 star Richie Stanaway has called time on his racing career at the age of just 28. The Kiwi was left without a full-time drive for 2020 as Garry Rogers Motorsport exits Australian Supercars. He endured a tough 2018 with Tickford Racing, before joining GRM for 2019, in which he had another difficult campaign that was also interrupted by injury.

FENESTRAZ TIPPED FOR SF

Japanese Formula 3 champion Sacha Fenestraz is looking set to graduate to Super Formula next season. The Frenchman is tipped to join the

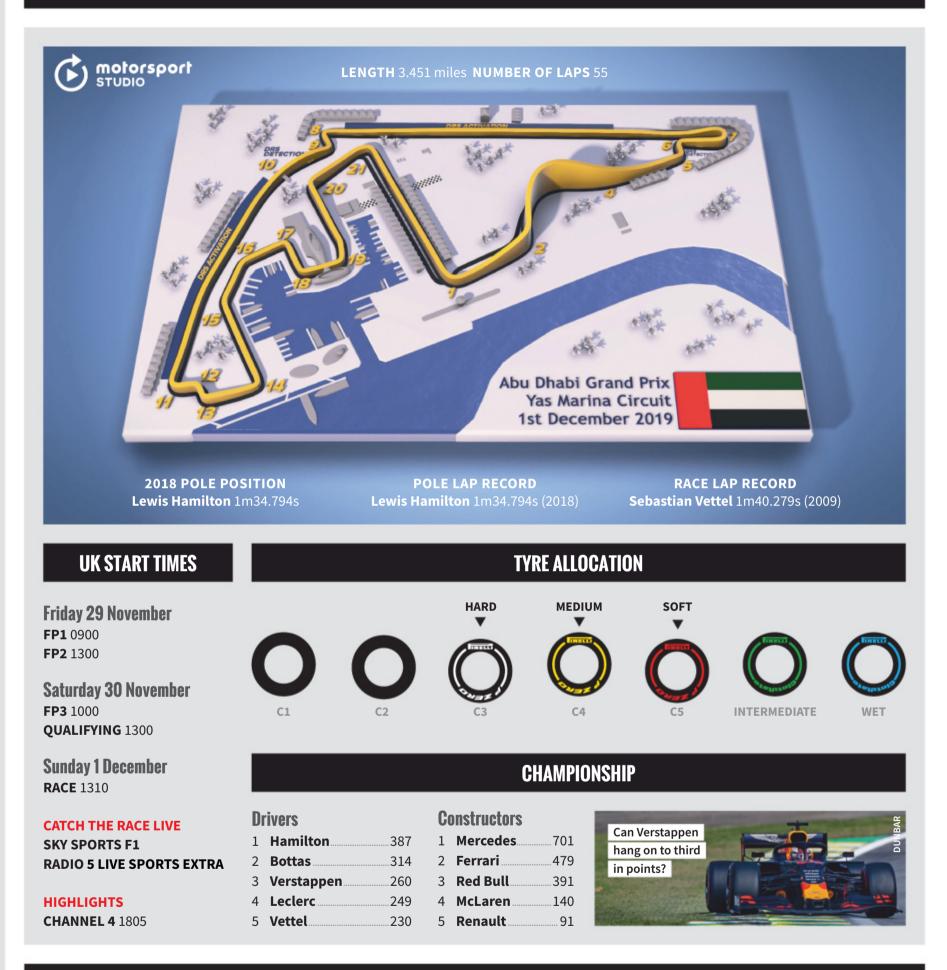
have any immediate ramifications for other **JACK COZENS**

Toyota stable and take a berth at Kondo Racing, and also drive for TOM'S in the Super GT series.



PIT + PADDOCK

F1 ABU DHABI GRAND PRIX PREVIEW



RACE STATS

Previous winners

2018 Lewis Hamilton Mercedes 2017 Valtteri Bottas Mercedes 2016 Lewis Hamilton Mercedes 2015 Nico Rosberg Mercedes 2014 Lewis Hamilton Mercedes 2013 Sebastian Vettel Red Bull 2012 Kimi Raikkonen Lotus 2011 Lewis Hamilton McLaren 2010 Sebastian Vettel Red Bull 2009 Sebastian Vettel Red Bull



Yas Marina masters

010 ed ntRaikkonen7.63Leclerc6.00ystem.Kubica5.50	at Yas Vettel 15.40 rom Verstappen 9.25 Races Bottas 8.33	ed nt	Vettel Verstappen Bottas Raikkonen Leclerc Kubica Ricciardo Perez	15.40 9.25 8.33 7.63 6.00 5.50 5.38 4.00
	ed Leclerc 6.00			



The wrong place for a finale?

The spectacular Yas Marina circuit has so far failed to provide a spectacle of F1 racing, but that doesn't mean the Abu Dhabi Grand Prix will be without interest

EDD STRAW

S uppose the Formula 1 season was already over. We'd head into the off-season with a dramatic Brazilian Grand Prix fresh in the memory, full of storylines, drama and excitement that prove even a'dead rubber'finale can deliver a great grand prix. Instead, we head to Abu Dhabi this weekend.

Every GP is a big occasion, although the ever-growing calendar is doing its best to dilute that big-day feel, so Sunday's race isn't irrelevant. But the chances of it providing a race to rival what we saw at Interlagos are slender. It's just not that kind of track and therefore hardly the ideal place for F1 to sign off every year.

As a circuit, nobody can dispute the level of commitment and investment. It's a magnificent edifice, with a unique look and feel thanks to the Viceroy Hotel in the centre and adjacent marina. But this is part of its problem — the track seems to exist more in thrall to the visual demands than those of driver challenge or racing.

The two back straights do create overtaking opportunities and the chance for drivers to pass and repass, but few would argue it's a modern classic. Perhaps that will change if the 2021 regulations deliver on their objective of improving 'raceability', but based on the 10 editions staged so far it's likely to be a fairly straightforward race.

Abu Dhabi will host its eighth F1 season finale this weekend, but only three of those have been world championship deciders. The famous four-way 2010 showdown was remarkable for the

"Abu Dhabi will host its eighth F1 season finale but only three have been title deciders"

circumstances of the race and Ferrari's disastrous strategy

To be fair to Yas Marina, it has perhaps been unfortunate. Were one of its three finales to have produced a memorable flashpoint, perhaps we would feel differently. Let's say Alonso had cleared the Renaults, then passed Nico Rosberg's Mercedes late on to beat Vettel to the 2010 title — that would represent one of the most dramatic finales ever. But it didn't happen.

Unfortunately for Abu Dhabi, the other venues that have hosted the last race over the past three decades all have their calling-card finales. Interlagos produced one of the defining title deciders in 2008 and a dramatic end in 2012. Suzuka produced the two iconic Alain Prost/Ayrton Senna clashes, while Adelaide delivered a similar moment for Damon Hill and Michael Schumacher, and the incredible 1986 three-way showdown. Those are circuits that have had regular finales and entered legend. Even Jerez, which only had one shot in 1997, proved to be the scene for another dramatic titledeciding collision, between Schumacher and Jacques Villeneuve.

But none of this means there's nothing at stake in Abu Dhabi and it won't feel like a dead rubber to many of those involved. For Max Verstappen and Charles Leclerc, third in the world championship is still at stake, while Sebastian Vettel would love to win and have a shot at jumping his team-mate in the standings.

Further down, there's a three-driver battle for sixth place in the drivers' championship. Carlos Sainz Jr has made this his target, and is level on points with Pierre Gasly. Alex Albon lies 11 points further behind with a good chance of taking it. While ultimately few will care or remember who finishes sixth, it's still an important personal target for all three.

The highest-stakes battle is for fifth in the constructors' championship. For Renault to miss out on fourth is a blow, but to slip to sixth behind Toro Rosso would be a catastrophe. Renault holds an eight-point advantage, so should hold on. But as the previous race at Interlagos proved, strange things can happen.

There's also the old cliche that the end of a season is effectively the start of the next, with Nico Rosberg's run of late-2015 form famously laying the foundations for a strong start to the following year. Hamilton remembers that, and last year proved his determination to finish strongly after clinching the title, so he will be keen to sign off on a high — as will team-mate Valtteri Bottas. But perhaps the team that most needs to end on a high is Ferrari after a season that promised much and has delivered just three victories — and too many missed opportunities. Above all, this campaign has showed just how big the gap is between Mercedes and Ferrari, not in terms of lap time, but execution. So those hoping for a dramatic title decider in Abu Dhabi next year have good reason to hope for a marker to be laid down this weekend. Next season really does start here, even if the current one isn't finishing spectacularly.

with Fernando Alonso, but as a race it was flat.

In 2014, F1 avoided an own goal in its one and only double-points finale, with Lewis Hamilton sealing the title after Mercedes teammate Nico Rosberg was slowed by an ERS failure. Had it been the other way round, the race would live in infamy, so Abu Dhabi and F1 dodged a bullet. The 2016 finale was the most tense, with leader Hamilton backing up the field in the hope Rosberg would drop back from second, but the blue touch paper was never quite lit.

From F1's perspective, Abu Dhabi is a great place to end the season because it pays big for that privilege. That's fantastic for the great god balance sheet, but perhaps not so much for the overall composition of the calendar. It's simply a track that doesn't seem to invite many memorable races.



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When the music stops

Sebastien Ogier's departure from Citroen for Toyota and Citroen's subsequent surprise exit from the WRC are still sending shockwaves through the sport

DAVID EVANS

e wrote lots of words on autosport.com last week.Lots about Citroen, lots about Sebastien Ogier, and a few about Toyota.I pontificated about what could happen in the World Rally Championship, what *would* happen, and why. So, that's lots of pontificating too.

Talking about the direction for this column, Autosport magazine editor Kevin Turner sought a summary. More pontificating. In one sentence, Kev went directly to the heart of the matter. "So…" said the boss, "Ott Tanak wins the title off Ogier this year, then gives it straight back to him by giving him the keys to best car for next year?"

Is there an argument against that? It's quite hard to find one. What's worth investigating is the snowball effect that started with a mad Friday in Spain, where a news story took the focus from what would be the final round of this year's World Rally Championship and placed it firmly on the driver market.

We've been over how Tanak ended up at Hyundai when, for all the world, the natural home for the champion appeared to be with the Toyota team he'd lifted the title with. But what we haven't looked at is the way that deal ultimately ended in Citroen's departure from the WRC.

As soon as the seat at the top table at Toyota was vacated, Ogier was going to be interested. There's no doubt that Ogier was deeply unhappy with the C3 WRC this season. Citroen team principal Pierre Budar indicated that the six-time champion

"There's no doubt that Ogier was deeply unhappy with the Citroen C3 WRC this season"

first raised the spectre of his early exit the night after a shocking Rally Germany for the squad. Ogier told the watching world that he couldn't drive the C3 WRC. Actually, he could, but it wouldn't let him go faster than seventh place. From then on, things were heading downhill. Yes, there was a 1-2 in Turkey for Ogier and team-mate Esapekka Lappi but, as Tanak's own 2018 victory in Marmaris demonstrated, the season's rockiest of roads favour a slower, steadier approach. That was a blip. Things were not getting any better and it would become increasingly clear that Ogier was more and more disillusioned. And then the Tanak thing happened. And that gave Ogier an in — and an out. He departed Citroen, and Citroen departed the WRC. The first paragraph of the French firm's communication of that news makes it quite clear that the two things are linked in the most intrinsic of fashions.

As a brief aside, I think the wording of that Citroen release is shocking. The sentiment is understandable (I think we'd all be honest enough to admit the 2020 drivers' title is likely to go one of three ways), but to walk away and leave that at Ogier's door, while labelling its own employee Lappi and a bunch of his supremely talented colleagues as 'not good enough' is unacceptable.

Ironically, the Citroen is looking stronger than it's ever been with recent development bringing a dramatic improvement in aerodynamic performance. And then there are big steps coming on the transmission and engine. Or there were.

Budar and Lappi are frank on the fact that next year's C₃ WRC would have been up to the task. Instead, there's a big, Citroensized hole in the service park. And eight drivers chasing one M-Sport Ford seat. Had Tanak stayed at Toyota, Ogier would – I'm sure – have stopped at Citroen, and Citroen would have remained in the service park. We would have had four manufacturers and at least three of those eight drivers pursuing M-Sport would have been gainfully employed. Does that mean all of this is the fault of the WRC's newest champion?

Absolutely not. His contract was up with Toyota, and he was a free agent to seek the best deal possible for himself. Which leads us neatly back to the beginning: whose fault was it that Tanak left Toyota? There's more irony for those who think Toyota team principal Tommi Makinen let his man slip away too easily. Few in the service park work harder to promote equality among the teams. It's Makinen who has consistently banged the drum about the need to ensure the fastest drivers are spread evenly among the teams.

Makinen wants to win, wants to succeed and deliver for his Japanese paymaster, but he's also very aware of the bigger picture and the need to ensure the world championship is providing entertainment through competitive edge. In all but budget... ceteris paribus is Makinen's mantra. With Ogier, Elfyn Evans and Kalle Rovanpera confirmed at Toyota, we know more about the coming season. But what of Lappi, Craig Breen, Jari-Matti Latvala, Hayden Paddon, Kris Meeke, Andreas Mikkelsen, Gus Greensmith and Mads Ostberg? We'll know more when the music stops. When's that? Simple, Friday 20 December. That's the day when the teams have to commit their entries for round one, January's Monte Carlo Rally. You might have noticed that I haven't gone into the wider issues facing the WRC right now on this page. Don't worry, that's coming next month. No punches will be pulled as we look at the other reasons behind the loss of a manufacturer that's been one of the cornerstones of the WRC.



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OPINION PIT + PADDOCK



I know that several drivers are thinking of either giving up or drastically reducing their participation **ROD BIRLEY**

Drivers fear being priced out of motorsport

I have just received my licence renewal. I see the two 'lower' race licences have gone up by nearly 50%, yet international licences have gone up by only 3%. Surely they are the ones who can actually afford an increase.



With the per capita permit fees also going up, along with track hire charges, I know that several drivers are thinking of either giving up or drastically reducing their participation. This, together with a lack of discipline/ punishment in driving standards (BTCC still sets a bad example), I think will put people off.

Race entry fees will go up substantially this year. For example 45 minutes of track time at Thruxton (15 minutes qualifying and 2x15 minutes races) will now cost £10,200. If you have 20 drivers that is at least £510 entry, more like £530 if you take into account awards and a scrutineers fee.

I know it will be said that the discounts offered offset these increases, but actually you can get better deals from eBay or Amazon.

I helped form a new club last year, to specifically help keep costs down. So far we have received no help from Motorsport UK. In fact this year it was a real struggle to just get our series permits approved. At the last minute we had to change our title names, presumably because someone from the 'old school' objected. It still feels like the establishment looks down on us.

Sprints and hillclimbs also feel the pinch

In your coverage of the increase in competition licence fees (Club Autosport, 21 November) you commented on the possible negative effect on grassroots racing, but omitted to mention that the same applies to sprints and hillclimbs.

Speed events are very much at the grassroots of motorsport, but they too are being hit by approximately a 50% increase in licence fees, plus an increase in event permit fees.

We are now being told about the need for investment, but the lack of warning and explanation has caused much discontent among the speed event community. A shame after the current MSUK management has talked much about helping and encouraging those at this end of the sport. John Opie

Redruth, Cornwall

Correction

David Hayhoe's Formula 1 The Knowledge, reviewed

I personally think that club motorsport is going to struggle as more people turn to trackdays. **Rod Birley**

Byemail

in the 21 November issue of Autosport, costs £55, not £35 as printed. Apologies to both author and publisher. For stat-per-buck, we reckon it's still a bit of a bargain.

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F1 2021

WILL THE NEW RULES



IMPROVETHE SHOW?

We look at the recently published new Formula 1 technical, sporting and financial regulations and ask if they really will improve the racing EDD STRAW AND JAKE BOXALL-LEGGE



he talk, the research, the analysis, the arguments and the working groups are over. The dust has now settled since the 2021 Formula 1 technical, sporting and financial regulations were published and presented at the United States Grand Prix at the start of this month, and now the next phase begins. For those on the outside, it means waiting, watching, listening as the teams work on their new cars. For those on the inside, the hard work has long since begun. The big teams will be working on how to maintain their advantage, while every single one of the chasing pack sees 2021 as the chance for a reset and a leap forward. What's going on in the factories now and over the next 18 months will decide who will be the winners and losers.

The big picture of the 2021 regulations is straightforward. One of the key objectives is improving "raceability", which means cars that can follow more closely and therefore overtake more easily. According to figures published by the FIA, a current F1 car is at 55% of its downforce level when following a car length behind another –

which is exactly why you so rarely see one car that close to another. The figure for the 2021 regulations is 86% – a big improvement, even though it's inevitable that, come the Australian Grand Prix in 18 months' time, the more sophisticated evolutions of cars will be at lower than 86%.

With greater focus on underbody aerodynamics and ground effect, the technical regulations are a good step towards achieving an improvement in raceability. That said, short of running races in a vacuum, it's impossible to eliminate the impact of turbulence entirely. Inevitably, this means more tightly controlled regulations that have raised legitimate fears about the lack of differentiation between cars. F1 has produced various illustrations of different interpretations of the rules that do show some variation, but it remains to be seen how diverse the crop of 2021 cars will be.

Another objective is getting the costs under control. This is achieved with the lump-hammer regulation that is the new financial regulations. Teams are limited to an annual spend of \$175 million — with exemptions covering driver pay, three highest-paid employees, non-F1 projects etc. The rules are detailed, well-

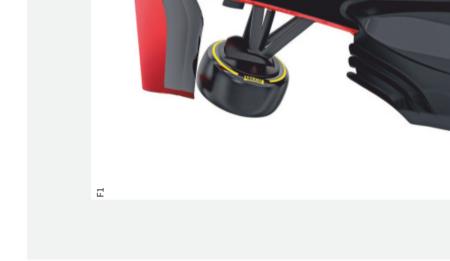
WITH GREATER FOCUS ON UNDERBODY

AERODYNAMICS AND GROUND EFFECT, THE RULES ARE A GOOD STEP TOWARDS RACEABILITY

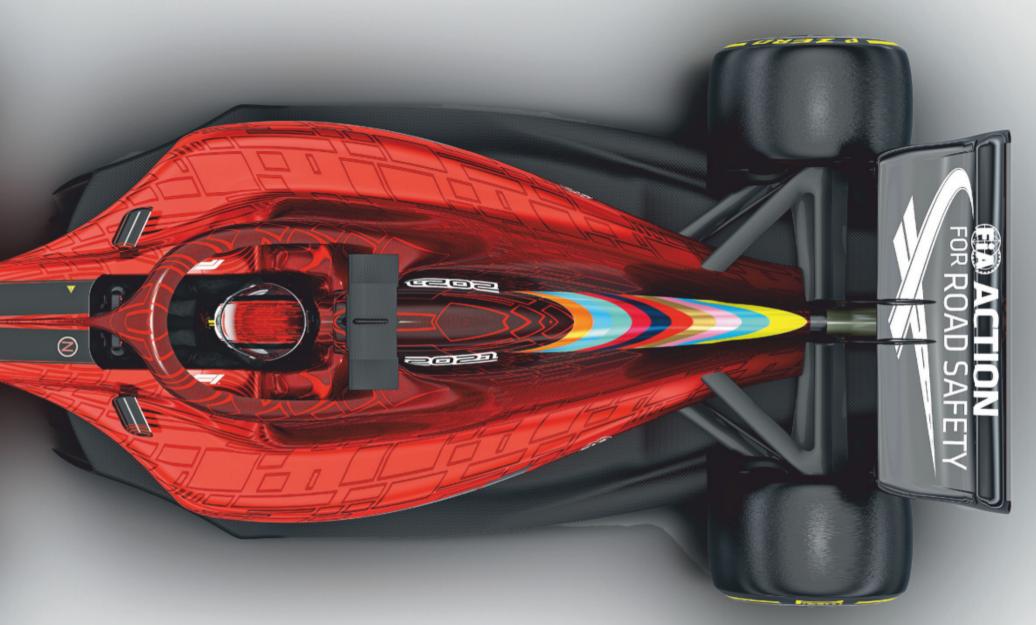
structured and do effectively control what is spent on the car while allowing teams to splurge on driving talent — good news for those in the cockpit who will therefore become a bigger performance differentiator. The question is how well they can be policed. F1 managing director of motorsports and technical director Ross Brawn insists the regulations have teeth, and on paper they do. There will inevitably be a test case sooner or later that will tell us just how sharp these teeth are.

With engines remaining fundamentally the same, albeit with a slight increase in minimum weight as a cost-saving measure, the rules as a whole have increased the weight of the cars — from 743kg to 768kg, despite the objections of the drivers. Unfortunately, this is unavoidable, especially with the adoption of heavier, 18-inch wheelrims in 2021, and the gripes of the drivers are effectively a tactic to try to put the brakes on any further increases. This is clearly the most ambitious attempt to curb costs in the history of F1, part of a push for sustainability. The other side of \gg





FORMULA 1'S NEW REGULATIONS



Aerodynamic changes aim to increase close racing and overtaking

AERO/GROUND EFFECT

Formula 1's 2021 regulations are so different to anything that has come before that they've had to be completely rewritten. Year by year, the FIA's amendments are made to an existing document, but 2021 brings a literal and metaphorical clean-sheet approach. Ground effect returns, but this isn't the same breed of ground effect that had cars hermetically sealed to the circuits in the early 1980s. The theory is the same and Bernoulli's principle doesn't change, but this ground effect runs to a rules set alien to most designers in the F1 sphere.

In the late 1970s and early 1980s, teams used sliding skirts to stop the accelerated air under the car from seeping out and the ambient air from seeping into the venturi tunnels in the sidepods. Skirts aren't about to make a comeback, and instead the regulations define 'floor fences'. These will not be flexible, as the overall floor design itself is strictly regulated, so it means that the ground effects in use on the 2021 car should not have the same capricious nature of the colossal sidepods of the past.

Beyond that, there's a whole raft of further changes:

decision, the regulations also stipulate that the crash structure at the front end will be longer, so it makes sense to strike off the last vestiges of raised noses.

The nose connects to a four-element front wing. That's one fewer than currently allowed. Because all those elements connect from the endplate to the nose, it stops teams exploiting the rotation of airflow from the wing tips which adds to the 'outwash'.

The endplates too have been redefined, with a smooth transition from the front-wing elements. As a result, 'footplates' have been given their marching orders, and there are fewer tools to generate bundles of outwardly moving airflow rotation. Teams will still find ways to turn air around the front wheels, no doubt, but it should be a lot less prevalent.

Another key difference is the new breed of rear wings. Without any form of conventional endplate, the beam wings return and the wing loops around in a continuous structure to weaken and raise the vortices produced at the rear. Currently, as the high pressure on top of the wing surface attempts to diffuse into the lower ambient conditions, strong vortices are formed that have a hugely detrimental effect to the front end of a following car. F1 and the FIA have taken care to ensure the turbulent air flows higher and over the top of the following car to allow it to follow more closely. Of course, there is the worry that F1's prescriptive designs will produce largely similar-looking cars, but the 2021 rules presentation featured three distinctly different designs permitted within the rules. But that's a complaint that has been levelled at F1 for decades, and so must be taken with a pinch of salt.



low noses, simpler front wings, redesigned rear wings and the culling of bargeboards amounts to salting the earth so nothing will ever grow there again. But there are many more new things beyond the aesthetics. Another change that should satisfy the 'purists' is the return of the low-nose front end. The thumb-tip crash structure should disappear with a "no radius of curvature below 50mm" stipulation, banishing memories of the 2014 season's awful crash structure 'appendages'. While that suggests an aesthetic

PART CLASSIFICATIONS

The new regulations are full of new definitions, most notably the five different characterisations of parts. Listed team components (LTC) are the parts that a team must design itself, while transferable components (TRC) are parts that can be bought and sold between teams, for example suspension geometry and gearboxes. There are also standard supply components (SSC), which all teams must use. That includes tyres and the ECU.

Now, there's the addition of the "prescriptive design components", for which the FIA set the

dimensions, and which each team must produce to the letter, such as the wheel aero and safety structures, and "open-source components".

F1 provides a dedicated server space for each team to upload their open-source parts onto, and if a team would rather save the effort of designing their own part they can access the CAD data and drawings of another team's design and make it themselves. It seems to be the antithesis of competition, so this is only reserved for generally performanceinconsequential parts such as steering wheels, pedals, driveshafts and the like. For 2021 and 2022, this expands to brakes, but these will be standardised after that.

Overall, Formula 1 is getting a long-awaited overhaul. Minor tweaks have brought very little change, and the rigorous, data-driven design concept for 2021 promises much.

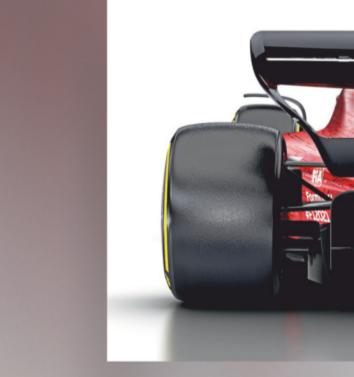
However 2021 plays out, the new shape of F1 will draw new fans – and critics. Inevitably, there will be some areas that the concept fails to deliver on, but there are plenty of reasons to be optimistic about Formula 1's future.



ENGINE TWEAKS

Originally, the MGU-H element of the power unit was slated to be removed, having been developed at great expense for very little road relevance. But that would undermine the costs sunk into it already. As a result, and after meddling from the expense. So while the concept remains the same, there will still be design challenges for the engineers to overcome.

Generally, the internals aren't too different. Apart from the vocal detractors that the hybrid power units have, who presumably consider



manufacturers, the powertrain has been left untouched for the most part.

Fuel pumps have been largely standardised to save costs and eliminate any fuel trickery, and teams are now locked into offering their customer teams the same specification of parts and fuels. Cost saving has had an effect, however, with the banning of "noncommercially available materials" and raising the allowable mass by 5kg to reduce the overall anything less lairy than a V12 to be sacrilegious, they're actually quite benign. The focus on the aerodynamics underpins the work that the governing bodies have done to redress the balance of Formula 1 and, while there will undoubtedly be a further shift in powertrain technology around 2026, the hybrids are here to stay. There is a shift towards renewables, and the mandated bioethanol content in fuel has been doubled to 20%.

GEARBOX

The development of gearbox components has been found to be quite an expensive pursuit and, in reaction to the addition of the cost cap, the gearboxes will now be frozen from 2021 to 2025. In that time, a team may redesign it once, but the geometric dimensions of the parts inside will be more strictly regulated to further reduce costs. Gearboxes can be bought from other teams, such as Haas still acquiring them from Ferrari.

In 2021 only, the gear ratios can be changed once mid-season, but all teams running the same gearbox from a given supplier must run the exact same ratios.

Rules governing clutch control have been changed for next season, handing more responsibility to the drivers, and these will be carried forward into 2021.



Ξ

the sustainability coin, of course, is environmental and this is high on the agenda as an ongoing area for F1 to work on - these rules, Brawn has stressed, are a starting point, but from 2021 there is an increase of biomass in the fuel to 20%.

While the sporting regulations remain largely unchanged, there will be some tweaks — likely with more to come. There's a switch to a three-day event, with the Thursday scrutineering and media activities squeezed into Friday morning, then the practice sessions — potentially reduced in length — packed into the afternoon. This is designed to offset the increase to a maximum potential calendar of 25 races, should F1 be able to find enough venues willing to pay for them.

Design-wise, the new rules present opportunities, but also a challenge. With the budget cap not coming in until 2021, spending is not restricted next year and there are suggestions that it could be the most expensive in F1's history as teams get as far ahead as possible on the next-generation car while maximising their performance in 2020. While the feeling is that some of the more excessive spending predictions are scaremongering, it does make sense to invest heavily in work on 2021.

But for teams such as McLaren, which view 2021 as an opportunity to make a stride forward and close up the gap to the big three, it's not logical simply to'do a Brawn' and effectively write off next season. How the balance is struck and the resources divided will be one of the key questions for 2021.

"It's really difficult because when you get such a fundamental change, it's very tempting to say, 'We'll just sack off next year, throw everyone on 2021', but when you are sat on the pitwall in Melbourne next year that's a very difficult thing to stomach," says McLaren technical director James Key. "You have to figure out what the best balance is. With some of the positive steps we've seen with the team this year we want to continue that momentum if we can, but 2021 is such a change you need to start early as well.

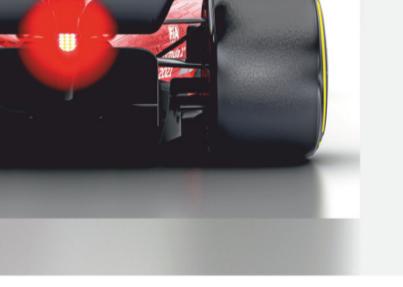
"We're already on the 2021 project, we have been for months and I'm sure other teams will be the same. But we haven't got a hard and fast split as to when we will really convert everything because it depends on how things progress. And the smaller you are, the trickier that is. I don't envy some of the teams that have got a little bit less resource than us because it's a difficult split to make."

RESOURCE DOES TALK IN F1 - THE MORE MONEY YOU HAVE THE MORE YOU CAN DO

FOR 2021 IN PARALLEL WITH YOUR 2020 PROJECT

While the smaller teams see next year as an opportunity, resource does talk in F1. The reality is that the more money you have the more you can do for 2021 in parallel with your 2020 project, and then there is the paradox of the budget cap. While the \$175 million spending limit will prevent the big teams hurling more cash at things and should, in the words of Brawn, "save the teams from themselves", there is still a baked-in advantage. The knowledge, the understanding of the science underpinning performance, has been built up by the teams over many years and even in 2021 they will benefit from the historic spending. Teams such as McLaren, which are on the up and expect to be on the budget cap in 2021, will therefore be limited in how much they can throw at gaining on F1's top teams. The budget cap is unquestionably a positive thing and necessary, provided it really can be adequately policed, but it's not without its drawbacks in the short term.

There are also three challenges on the horizon that could yet impact both the \gg







effectiveness and the final form of the regulations. The first is the question of the tyres, which have the potential to undermine some of the objectives of the rules. This makes the so-called 'target letter' that will be agreed with Pirelli, which is signed up as F1's control-tyre supplier through to the end of 2021, crucial.

Assuming the cars are less sensitive to the turbulent air thanks to the new regulations, that solves one part of the problem. But, given the propensity of the current Pirellis to overheat in such conditions, it will be necessary to have a more robust, consistent tyre to complement the aero rules, even though the aero regulations should automatically help out the tyres by ensuring the downforce is less compromised. After all, what is the point of being able to follow more closely aerodynamically if the tyres don't let you do so?

"What's really important is the target letter," says Lewis Hamilton. "They have never had a good target letter in terms of what to deliver, so the Grand Prix Drivers' Association is working closely with the FIA to make sure it is written well. I don't

THE MOST SIGNIFICANT CHALLENGE IS THE FACT THAT NOT A SINGLE TEAM IS YET SIGNED UP FOR F1 FOR 2021 ONWARDS

know who wrote it before but it wasn't great, so hopefully this time we'll have a better target letter and they'll be able to develop a tyre that is more in the direction of what people need to help us race better."

So the priority is to write the target letter so that managing the rubber is less important in combat situations, while allowing scope for strategic variation. But that's more easily said than done and depends on Pirelli's ability to deliver.

The second challenge, alluded to in passing by Brawn during the presentation of the rules, is the circuits. He stated there's much more that can be done in terms of track design to assist the racing but, while there is plenty of thought going into this, it's not yet clear where this will lead, especially considering the prodigious costs involved in modifying existing circuits and the unavoidable geographic limitations. No regulations are going to make overtaking at Monaco easy, for example.

The third, and most significant, challenge is the fact that not a single team is yet signed up for F1 for 2021 onwards. Now that the regulations have been finalised and published, the serious negotiation starts. While the new financial regulations have introduced the budget cap, the crucial question of the more equitable distribution of F1's revenue is still up in the air. The teams benefiting from extra payments will

SAFETY CHANGES

Continuing the work with the halo head- protection system, the concept 2021 cars all feature a design with greater integration into the aesthetics of the cars. The benefits of the halo should not be diluted for the sake of visual appeal, but any attempt to make it look like less of an afterthought will be welcomed.

The noses will be changed to improve the crash structure. The technical direction in that area isn't completely defined at this stage, and there's still provision in the rules to define some further crash tests for the new noses, but this shouldn't have any bearing on the improved visual qualities at play.

Side-impact structures are also set to change, but are still under investigation by the FIA as it defines the safety tests required. What has been defined is that the current two impact spars will be replaced by one, larger structure, and this will be another prescriptively designed component to ensure the right level of safety for each driver.

Selected aero parts will now be covered in a rubber membrane too, to reduce the risk of debris appearing mid-race by keeping everything all together in one piece.



be determined to hang on to them, and the powerhouse entrants — Ferrari, Red Bull and Mercedes — will use every bit of leverage they can to extract the best deal for themselves. It's the same even for the smaller teams, but they lack the might to be a threat. F1 is resolved to tackle this, but the negotiations will be intense and there are hints that some teams feel they can use potential tweaks to the regulations as a bargaining chip. These negotiations will be key to achieving the objective of the rules of increasing the equality of opportunity in F1.

While the new rules are heading in the right direction, there are plenty of aspects that teams are either sceptical about or feel work against them. It's in their competitive interest, therefore, that the rules remain a battleground.

That's the nature of F1. It's highly competitive and every team will be sure that their vision — the one that best suits them — is the 'right' one for F1. Dealing with that and reaching the right compromise is the biggest challenge that Liberty Media has faced in F1. **#**

SUSPENSION/WHEELS

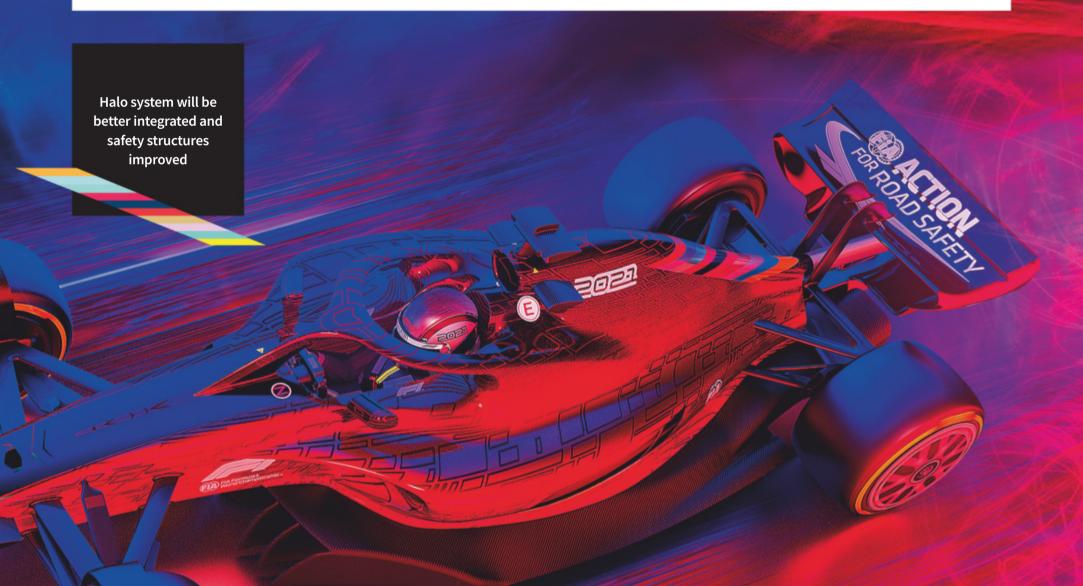
An already-confirmed change for 2021 was the introduction of 18-inch wheels, which will result in a slight increase in overall diameter, including the tyre. With the resulting stiffer sidewalls, the overall steering input should be more direct, thanks to the reduction in slip angle, but the caveat is that the reduced flex in the tyres means it may be harder for a driver to warm them up. Pirelli should also bring an end to its experiments with high-degradation tyres, as the 2021 compounds are expected to be more durable.

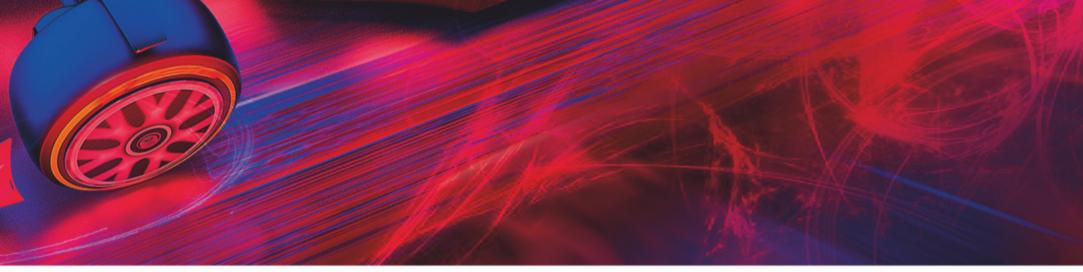
The wheels also get new aerodynamic tools. For the first time since 2009, wheel covers make a return but, rather than allow the teams to exploit that area and risk diluting the overtaking statistics that F1 and the FIA have neatly crafted, these will be prescriptively designed. That also applies to the new deflectors, attached to the inside section of the wheel drum. The deflectors are not just there for show; these exist to condition airflow around the wheel and help to minimise the antagonism produced by the turbulent wake further down the car.

Suspension has also been simplified, as it has become an area of intricate (and expensive) development over the past few seasons. The inerter – or heave spring – supports the suspension in response to aerodynamic load, meaning the teams can run smaller and softer torsion bars to improve mechanical grip. But torsion bars are out and teams need to return to conventional spring/damper units – time-tested components that should be cheaper overall. Those, like gearboxes and the rest of the suspension components, can be transferred between teams.

Along with the already-standardised tyres, the wheelrims will also be mandatory for all teams to use. Tyre blankets will be standard until 2023, from which they will be banned in F1 to further save costs.

Brakes are now added to the list of parts that have a specific seasonal allocation. Each car may only use 22 sets of brake parts throughout the season and any contravention of that is subject to a small grid penalty. That means brake assemblies will have to be beefed up to cope with the load, and the consensus seems to be that the current carbon-carbon brake discs (where the disc has a carbon matrix) will eventually give way to a carbon-ceramic formulation. They'll be bigger to cope with the new 18-inch wheels.













WHY ASTON MARTIN IS NOW PART OF THE AUTOSPORT BRDC AWARD

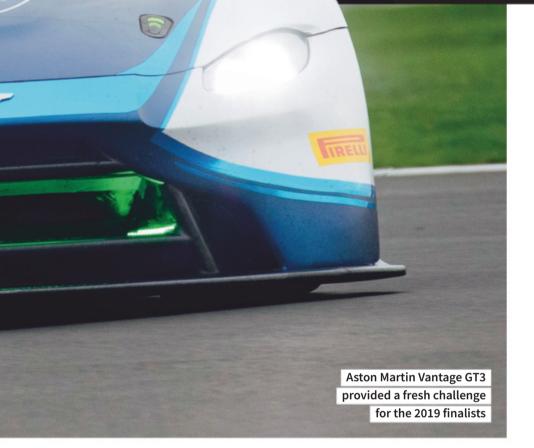
Aston Martin became a key partner in the search for Britain's next Formula 1 star earlier this year and has already had a big impact

KEVIN TURNER

PHOTOGRAPHY 🛴

motorsport IMAGES

"



ston Martin was formed in racing — it's what it is. Lionel Martin racing up Aston Hill, endurance motorsport, Le Mans, Formula 1, DTM. We have been involved in almost every form of motorsport and that dictates the kind

of cars we make and the technology that we use."

Aston Martin president and group CEO Andy Palmer is very clear about the importance of motorsport to the famous British marque, which helps to explain why it decided to get involved with the Aston Martin Autosport BRDC Young Driver of the Year Award.

On the face of it, Aston Martin wasn't the obvious candidate to get involved in the initiative to find Britain's next F1 star. Despite its relationship with Red Bull Racing, it's more famous for its exotic road cars and success in endurance racing. But the Award, which began in 1989 when David Coulthard was the inaugural winner, ticks two key boxes when it comes to Aston Martin's approach in the 21st century.

"ASTON MARTIN HAS BEEN INVOLVED IN ALMOST EVERY FORM OF MOTORSPORT"

The first is the direct link between the Gaydon-based firm and the motorsport competition mentioned above. "The Vantage GTE racer starts life as a tub manufactured in the road car factory," adds Palmer. "Lots of manufacturers talk about being inspired by racing and



crossover from racing, but normally the racing division has nothing to do with the car division. That's not true with Aston Martin. "We've seen a huge revival in the development of our GT₃ and GT₄ cars and their sales. We've gone from basically not having sold any cars in 2018 to selling 65 cars this year. They're seen as really competitive cars. If I had to keep just one of the motorsport programmes it would be GT₄, because it's closest to the road car." »



The second box is that the Award is all about finding and supporting young British talent, something Palmer believes is crucial for the future of the UK motor industry. "The company has made a commitment to recruiting significant numbers of apprentices every year, and I have a great belief that if we are to preserve skills in the United Kingdom we need to invest in them," he says. "The only way you can guarantee to preserve those skills is to develop them here and that spills over into motorsport. It helps fly the flag of British technology.

"FOR THE FINALISTS, THE GT3 CAR IS COMPLETELY DIFFERENT AND TAKES THEM OUT OF THEIR COMFORT ZONE"

"If you look to other areas of the automotive/automobile industry in which we as a country excel, you find yourself in Formula 1. We're really good at race car technology and F1 is the showcase for that. It's a Super Bowl every two weeks. It's easy for the public to forget that a Mercedes is developed in Brackley or a Red Bull is developed in Milton Keynes, but the fact that Lewis Hamilton, a great British talent, is driving brings that back. It's all about resonance.

"What's the all-important part of racing? The hero is the driver, so we have a responsibility in developing our own drivers. I would like to claim that we found [W Series champion and 2019 Award finalist] Jamie Chadwick quite early [she won British GT4 with Aston Martin in 2015]. The Award is a more formal and structured way of finding that talent."

Aston Martin's role in the Award goes beyond the headline £200,000 prize and Red Bull F1 test drive. Factory pilot and 1996 Award winner Darren Turner joined the judging panel this year and a Garage 59-run Aston Martin Vantage GT3 became one of the three test cars.

Chairman of the judges Derek Warwick believes Aston Martin's arrival added to the strengths of the Award. "When we signed with them we realised it would raise the profile of the Award," says the ex-F1 racer. "And that's exactly what it did, with the new livery on



the F2 cars and the £200,000 prize, it was what the Award needed. It raised the feeling with the judges, the drivers, everyone involved — it was a massive injection. It was a massive shot in the arm for me. It felt different and allowed us to keep pace with the times."

For Turner, who was also a judge in 2008 and performed benchmark driving duties in the Vantage this year, the Award has developed vastly over the past 23 years. One of the key changes has been that each finalist gets their own MotorSport Vision Formula 2 machinery for the two-day Silverstone test.

"When I did it we had a Formula 3 car, Silverstone school cars and a saloon," says Turner. "At the time the F3 car was a great car to have some laps in. There were six of us and it was a busy two days, but it was more relaxed than now — we didn't have so much time on track because we had to share the same equipment. It was done at a high level, but nowhere near where it is now.

"Having judged it 11 years ago and then seeing the level that it's at now, it's moved on significantly. Every driver is analysed to the nth degree, from their fitness level to how they operate on the sim, which is a critical part of being a successful driver."

Turner also believes the presence of the turbocharged four-litre, front-engined GT₃ Aston Martin, a very different beast to the







single-seaters finalists are normally used to, provides important extra information for the judges.

"The F2 is an extremely difficult single-seater to drive, then finalists jump into the LMP3 Ligier and the GT3 – they've got to adapt quickly," he adds. "They're tested in all sorts of ways and that really helps in choosing the best driver.

"The Award is about drivers who are aiming for Formula 1 - the selection process is from single-seater categories - but you've got to have some other matrix to look at how drivers are in other scenarios. For a lot of the drivers, the GT₃ car is completely different and takes them out of their comfort zone.

"To get into a car that is bigger, heavier, that requires a different driving style — with ABS, traction control, a powerful engine — is a good thing. It's really interesting to see how the drivers are able to adapt. The driver with the most ability tends to be the one that nails all three cars."

Palmer hasn't ruled out having more of a relationship with Award finalists and winners in the future. Aston Martin already has its successful Driver Academy and has helped drivers such as Ross Gunn and Charlie Eastwood.

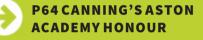
"The Nurburgring 24 Hours is something we do every year

and it's a great way of discovering brave talent!" says Palmer. "Getting into the Aston Martin family is sometimes quite difficult because we're a small company, but we do tend to look after our drivers once they're on the inside. The Award is a way of getting into the Aston Martin club.

"If Formula 1 is the number one – your sprinting talent – then perhaps the top level of the World Endurance Championship is

something like the marathon. We can build ladders up to the pinnacle of both types of motorsport."

In December at the Autosport Awards, we'll find out which of the 2019 finalists — Enaam Ahmed, Chadwick, Johnathan Hoggard and Ayrton Simmons — will be ready to take the next step on one of those ladders as the winner of the Aston Martin Autosport BRDC Young Driver of the Year Award. #



NEXT WEEK

AWARD TESTS 5 DECEMBER ISSUE Meet the 2019 finalists and learn about the test process.

DARREN TURNER'S VIEW ON THE AWARD

It's unique to the UK – I don't think there's anything similar out there in terms of helping young drivers. We are very lucky in the UK that we have such a rich motorsport environment and one of the most prestigious awards in any sport. help promote British drivers up the ladder, ideally towards Formula 1 but certainly being a professional driver representing manufacturers around the world, is a good thing.

If I hadn't won the Award I don't think I'd have ended up And driving the Silverstone Grand Prix track in a current grand prix car, on a perfect spring day, built that relationship with Martin Whitmarsh and McLaren, and ultimately got me on the road to being a professional driver.



It's a leg up in terms of recognition, opportunity, financial help. Because motorsport is so competitive on a global scale, anything we can do that can with a professional career. It had a huge impact because it gave me the opportunity to have an involvement with McLaren when I got my F1 test in March 1997. I'd imagine without the Award I would probably have had another couple of years and then my opportunities would have run out. It gave me a huge stepping stone.



BIRD AND SIMS OUTSHINE THE REST

Unsurprisingly, there was lots of drama in the season opener – and two Brits came through with impressively classy performances

ormula E returned in characteristic fashion last weekend. The two races in Saudi Arabia neatly showcased how the
on-track action tends to go in the electric championship: a tight, tactical affair with razor-sharp passing; and complete chaos with much controversy.

While the pre-season focus had largely been on series newcomers Porsche and Mercedes — and they did have their shining moments at the Diriyah track — it was three of the championship's established stars who made the most notable starts to the new campaign, with wins for Sam Bird and Alexander Sims.

STAR ONE SAM BIRD

The driver generally considered to be the best FE performer without a title over its first five seasons made a massive early impression on the 2019-20 championship battle at the wheel of his Envision Virgin Racing Audi. Bird was rapid from the off on Friday, taking third in FP1 and topping second practice. This was significant because it highlighted how well he was driving, as the approximately 80% resurfaced track caught out the unwary and was described as "like ice" and "even worse to drive than in the wet last year" by various competitors.

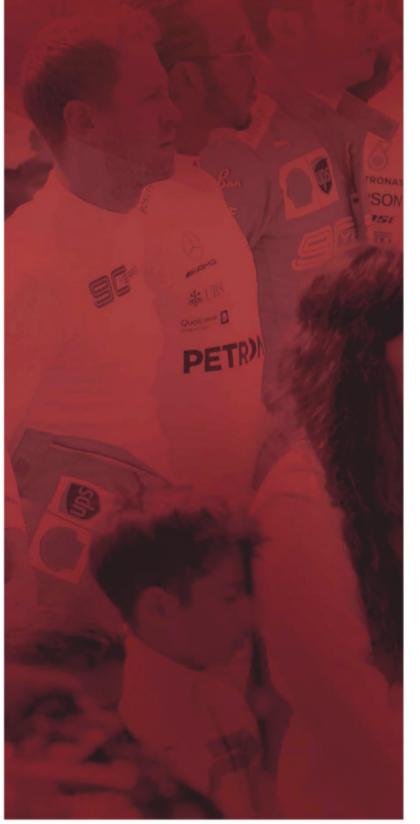
FORMULA E DIRIYAH RACE CENTRE

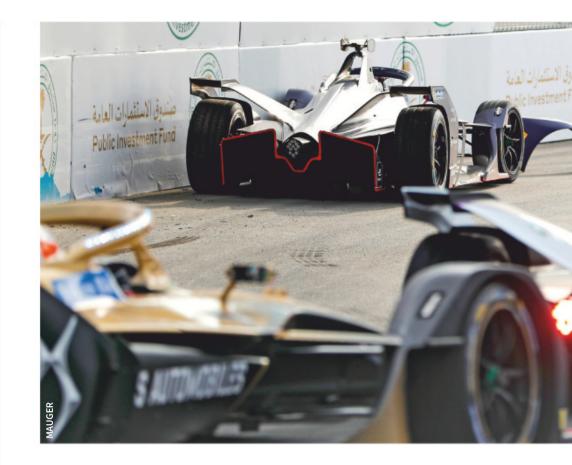


The track work had been done to improve drainage after rain blighted the inaugural event, but it meant the drivers who best adapted to the low grip and evolving surface would be rewarded. In group qualifying Bird was unstoppable, taking the season's first point with a brilliant lap from group two. But he came unstuck in superpole — a wild moment put him off line at the long right-hand Turn 4 and he did well to keep it out of the wall given the severe lack of grip on the sandy surface. A fifth-place start was the result. But in the race there was no stopping Bird. He used an aggressive attack-mode strategy to make his way up the order, making incisive passes along the way. But what was really impressive was how he stayed with the rivals he caught even when they took the fourminute 35kW power boost (with two activations required, as ever). The defining moment of the race occurred as Bird, running third, caught Stoffel Vandoorne on lap 23 of 34. Bird made to attack the Mercedes driver at the Turn 18 right-hander at the end of the main straight. But Vandoorne then launched his own move on BMW Andretti driver Sims, the long-time leader from pole, that resulted in a slight touch and sent them both deep. Vandoorne shot ahead and took the lead, while Bird nipped past Sims for second.



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After stalking Vandoorne with and without his second attack mode, Bird made the race-winning pass at Turn 18, muscling by to take a lead he would not lose despite late disruption from a crash involving Daniel Abt and Antonio Felix da Costa. "The car felt fantastic," said Bird. "And we executed a good plan with the attack mode. We have done a lot of work this off-season, and this rewards that work."

The win maintains Bird's streak of winning in every FE season so far, with this triumph coming five years to the day since he scored his first category victory, in Putrajaya. "The one thing no one knew was the respective efficiency of all the cars," said a beaming Virgin team boss Sylvain Filippi. "We were pretty confident because we were looking strong. And then in the race we were really mega on race pace."

But the second event brought Virgin — which had also taken fifth in race one with a battling drive from Robin Frijns from 12th on the grid — and Bird back down with a bump. Bird was again on the pace in practice, just 0.022 seconds behind pacesetter da Costa, and he managed a superb seventh from the muchmaligned first qualifying group (even if the track surface was better with more rubber on day two). Without "too many mistakes in

"THE CAR FELT FANTASTIC. AND WE EXECUTED A GOOD PLAN WITH THE ATTACK MODE. WE HAVE DONE A LOT OF WORK THIS OFF-SEASON, AND THIS REWARDS THAT WORK"





the final sector", though, he might have made superpole. But he looked to be in the fight during the early stages, before the misfortune that blighted his 2018-19 season struck again.

As Lucas di Grassi checked up at the exit of Turn 1 on lap 14 of 30 following a pass by da Costa, he was attacked around the outside by Bird, who then lost momentum and was in turn harassed by Jaguar's Mitch Evans. They collided as they ran through Turn 4 – Evans was later handed a drivethrough penalty – and Bird "was a passenger, my car was already broken" even when he was hit from behind by Pascal Wehrlein as he edged through the next corner, which sent him into the wall and out. Bird was philosophical about the second race, but unequivocal on one thing: "We've proved we're contenders."

STAR TWO ALEXANDER SIMS

Sims had quite the rough ride in his rookie FE season in 2018-19. There was the intra-BMW implosion with da Costa in Marrakech, plus numerous clashes that cost him results, before it all turned around with pole and a podium in the final race. But the speed was clearly there, which convinced BMW to keep the 2008 McLaren Autosport BRDC Award winner on, alongside new recruit Maximilian Gunther. And that speed brought him glory last weekend.

Although Bird was the race-one superpole favourite, Sims nailed his lap to take the first pole of the season, his car looking planted and nicely nimble on Diriyah's twisty early sectors. He led from the off and looked his usual calm self, but it quickly became apparent that he was overconsuming energy compared to the chasing Mercedes pair of Vandoorne and Nyck de Vries (and then Bird's Virgin).

When the assault from Vandoorne forced him out of the lead, Sims felt "it was my fault for not blocking earlier fully". He came home eighth after another bold move from de Vries "that was hard but fair" pushed him further back.

Sims and BMW knew there was work to be done overnight. "We had a long chat about what we needed to do differently," explained team boss Roger Griffiths. "He slept on it and woke up in a really good frame of mind".

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That resulted in another pole position. It was more spectacular – particularly his wild slide out of the tricky Turn 17 that feeds onto the main straight – and needed a slice of luck, da Costa losing it at that same turn after just pipping Sims's sector-one superpole benchmark. Nevertheless, a third consecutive FE pole was his. Sims was unflappable in the second race despite the chaos. Having scampered clear from pole with no signs of further energymanagement issues, he had to endure two safety-car periods and a full-course yellow. After da Costa and Sebastien Buemi triggered the race's first flashpoint when da Costa spun the Nissan e.dams



RACE CENTRE FORMULA E DIRIYAH



driver around at the exit of Turn 18, the Bird/Evans/Wehrlein incident led to the first race suspension. Then Virgin's day two got even worse when Frijns lost the rear of his car in sector one and slammed out, triggering another safety car. Then, when the race restarted, the tractor craning Frijns's car away got stuck as it reversed off the circuit, leaving the accompanying marshals exposed and forcing the FIA to throw a sudden FCY.

But Sims was serene, even taking his first attack mode just as the first safety-car period ended, knowing the following da Costa couldn't overtake him as the activation zone was before the track's control line. Gunther, however, did make up ground here — clouting Vandoorne's car as he came by — and although he crossed the line behind Sims and ahead of the Audi of di Grassi, who recovered from a subdued 13th place in race one with a "flipped" car set-up for day two, his maiden FE podium was inevitably taken away. Vandoorne therefore scored his second third place.

"A chunk of it was just in me — how I managed my energy in the first phase of the race," said Sims of his different energy usage after securing his first single-seater win since the GP3 round at Spa in 2013. "We seemed to get every decision right."

"SIMS WAS SERENE, TAKING HIS FIRST ATTACK MODE JUST AS THE SAFETY-CAR PERIOD ENDED, KNOWING DA COSTA COULDN'T OVERTAKE HIM AS THE TRACK'S ACTIVATION ZONE WAS BEFORE THE CONTROL LINE"



DIMMED STAR JEAN-ERIC VERGNE

DS Techeetah's reigning champion Jean-Eric Vergne has become the FE benchmark over the past two seasons. But for the second season in a row, he could not bring his authority to bear at Diriyah.

Vergne scored "the pole of my group" by topping group one for the first race — a lap that deserves much praise given the awful track conditions and the bunched-up nature of the runners — but was still only 11th following the positive track evolution for the later groups.

Vergne looked to be having a fairly anonymous first affair, but it later became clear that he was grappling with a major issue. A steering-rack problem manifested itself after five laps and, although Vergne hung on, eventually "it was becoming too heavy and it was very unsafe for me to drive so I took the decision to stop". His team worked until the early hours diagnosing and fixing the problem.

Race two had Vergne rueing a costly practice crash on Saturday morning. He felt the incident was "nothing spectacular". It broke his left-rear suspension but, while that was quickly fixed, the 32g impact had triggered a medical check for the driver and a battery inspection. Damage was detected and a change needed, so suddenly Vergne dropped from 11th on the race-two grid (again impressive as he'd had virtually no practice on the now grippier surface) to last, with a 10s stop/go penalty still to serve. "Unreal" and "extremely harsh" was his assessment.

In the race he sensibly drove slowly to build an energy advantage in case the safety car appeared, as it duly did. But Vergne could not rise up the order quite as dramatically as de Vries (23rd to eighth at the flag) or James Calado (21st to 12th), and he came home 13th. But Vergne got his "miracle" points with eighth when Gunther and de Vries — plus race-one runner-up Andre Lotterer — were penalised for various safety-car overtaking infractions, Buemi was

demoted for rejoining the action in an unsafe manner following his da Costa-induced spin, and Oliver Turvey was disqualified from a brilliant race for using too much energy.

The Saudi track is not a happy hunting ground for Vergne or his team — they lost the 2018 Diriyah win to a technical penalty but at least he could smile afterwards: "To win the championship you [clearly] need to start with some really bad races." The first races of FE 2019-20 are in the books, with Sims leading the standings. But had it not been for his second-event crash, Bird would probably have stamped his authority on the weekend. Nevertheless, it was a brilliant start for the two Britons and, with protests in Santiago creating some uncertainty about FE's second round going ahead, they could be at the top of the pile — with Vandoorne in between — for quite a while yet. **#**



JAGUAR I-PACE eTROPHY

It seemed that Formula E's nominated support event would befall the same curse as the drummer from *Spinal Tap*, but the hoodoo has been dispelled as the Jaguar I-PACE eTrophy made its return for a second season.

The fleet of Jags had received a few tweaks ahead of the 2019-20 season, with the suspension softened at the front and stiffened at the rear to improve handling. Formula E's attack mode also joins the eTrophy formula, aiming to improve the overtaking on show.

Reigning champion Sergio Jimenez sought to pick up from where he left off, but encountered incredibly stern competition from Kiwi Simon Evans, who secured pole in a shortened first qualifying session. Evans, the winner of last year's sole Diriyah race, was decisive at the start of the race and covered off Jimenez before surging into a 1.4-second lead by the end of the first lap.

Jimenez spent his race embroiled in scraps with guest driver Abbie Eaton and guest-turned-full-timer Alice Powell. The Brazilian finished more than five seconds down on winner Evans.

Overnight, Jimenez and his team turned his car around for the second race, with greater success. Beating Evans to pole, Jimenez was under heavy fire from his rival during the opening laps. The race was paused midway for circuit repairs, courtesy of ex-F3000 racer Mario Haberfeld, who had nerfed local racer Fahad Algosaibi on the run to Turn 1 and put the Saudi driver into the wall, which moved on impact. Haberfeld managed to keep going, but received a time penalty as a result.

On the restart, Jimenez remained clear of Evans, with the duo both with a final attack mode to use. Their stalemate ended when both opted to take it on the final lap, but a final charge from Evans wasn't enough to secure a double victory. Powell secured a brace of third-place finishes, while last year's Pro-Am runner up Yaqi Zhang clinched class honours in both races. JAKE BOXALL-LEGGE

RESULTS ROUND 1/12, DIRIYAH (SAU), 22-23 NOVEMBER (34 LAPS – 53.057 MILES)

POS	DRIVER	TEAM/CAR	TIME
1	Sam Bird (GBR)	Envision Virgin Racing/Audie-tron FE06	46m17.371s
2	Andre Lotterer (DEU)	Porsche/Porsche99X Electric	+1.319s
3	Stoffel Vandoorne (BEL)	Mercedes/MercedesEQSilverArrow01	+1.672s
4	Oliver Rowland (GBR)	Nissan e.dams/Nissan IM02	+1.944s
5	Robin Frijns (NLD)	Envision Virgin Racing/Audie-tron FE06	+3.983s
6	Nyck de Vries (NLD)	Mercedes / Mercedes EQ Silver Arrow 01	+4.560s
7	Edoardo Mortara (ITA)	Venturi/Mercedes EQ Silver Arrow 01	+5.122s
8	Alexander Sims (GBR)	BMWiAndrettiMotorsport/BMWiFE.20	+5.715s
9	Jerome d'Ambrosio (BEL)	Mahindra Racing/Mahindra M6Electro	+6.628s
10	Mitch Evans (NZL)	Jaguar/JaguarI-TYPE4	+7.048s
11	Pascal Wehrlein (DEU)	Mahindra Racing/Mahindra M6Electro	+7.460s
12	Felipe Massa (BRA)	Venturi/Mercedes EQ Silver Arrow 01	+8.166s
13	Lucas di Grassi (BRA)	Audi Sport Abt / Audi e-tron FE06	+8.404s
14	Antonio Felix da Costa (PRT)	DS Techeetah/DS E-Tense FE20	+8.853s
15	Oliver Turvey (GBR)	NIO 333/NIO FE-005	+10.172s
16	James Calado (GBR)	Jaguar/JaguarI-TYPE4	+11.572s
17	Neel Jani (CHE)	Porsche/Porsche99X Electric	+15.429s
18	Maximilian Gunther(DEU)	BMWiAndrettiMotorsport/BMWiFE.20	+25.662s
19	Brendon Hartley (NZL)	Dragon Racing/Penske EV-4	+52.219s
20	MaQingHua(CHN)	NIO 333/NIO FE-005	-1lap
R	DanielAbt (DEU)	Audi Sport Abt / Audi e-tron FE06	29 laps-accident damage
R	Jean-Eric Vergne (FRA)	DS Techeetah/DS E-Tense FE20	21 laps-steering rack
R	Sebastien Buemi (CHE)	Nissan e.dams/Nissan IM02	3 laps-electrics
NS	Nico Muller (CHE)	Dragon Racing/Penske EV-4	accidentdamage

Winner's average speed 68.771 mph. Fastest lap Abt 1m13.742s, 75.654 mph.

SUPERPOLE

1 Sims 1m14.563s; 2 Vandoorne 1m14.839s; 3 de Vries 1m14.929s; 4 Mortara 1m15.131s; 5 Bird 1m15.350s; 6 d'Ambrosio 1m15.539s.

QUALIFYING Bird 1m14.946s; de Vries 1m15.027s; Vandoorne 1m15.151s; Mortara 1m15.254s; Sims 1m15.255s; 6 d'Ambrosio 1m15.273s; 7 Lotterer 1m15.518s; 8 Rowland 1m15.653s; 9 Gunther 1m15.680s; 10 Turvey 1m16.018s; 11 Vergne 1m16.129s; 12 Frijns 1m16.200s; 13 Wehrlein 1m16.200s; 14 Buemi 1m16.243s; 15 Abt 1m16.264s; 16 Evans 1m16.532s; 17 Massa 1m16.583s; 18 Hartley 1m17.074s; 19 di Grassi 1m17.213s; 20 Jani 1m17.745s; 21 da Costa 1m18.613s; 22 Ma 1m21.701s; 23 Muller 1m23.017s; 24 Calado 1m23.792s.

RACE 2 (30 LAPS – 46.858 MILES)

1 Sims 46m48.327s; 2 di Grassi +2.817s; 3 Vandoorne +3.581s; 4 Mortara +4.294s; 5 Rowland +5.475s; 6 Abt +16.942s; 7 Calado +17.221s; 8 Vergne +19.394s; 9 Hartley +20.702s; 10 da Costa +22.634s; 11 Gunther +25.383s; 12 Buemi +26.291s; 13 Jani +27.493s; 14 Lotterer +29.046s; 15 Wehrlein +35.290s; 16 de Vries +36.318s; 17 Massa +45.758s; 18 Evans +1m01.105s; 19 Ma +1m28.165s; EX Turvey +16.544s; R Muller 28 laps-accident damage; R Frijns 18 laps-accident; R Bird 13 laps-accident; NS d'Ambrosio.

Winner's average speed 60.067 mph. Fastest lap da Costa 1m12.481s, 76.970 mph.



SUPERPOLE

1 **Sims** 1m11.476s; 2 **Buemi** 1m11.696s; 3 **di Grassi** 1m11.784s; 4 **d'Ambrosio** 1m12.093s; 5 **da Costa** 1m14.134s; 6 **Evans** 1m11.929s – excluded from Superpole.

 QUALIFYING da Costa 1m11.418s; Buemi 1m11.774s; d'Ambrosio 1m11.835s; Sims 1m11.858s; di Grassi 1m11.939s;

 Evans 1m11.972s; 7 Bird 1m12.007s; 8 Mortara 1m12.008s; 9 Gunther 1m12.051s; 10 Lotterer 1m12.153s;

 11 Vandoorne 1m12.422s; 12 Frijns 1m12.454s; 13 Wehrlein 1m12.635s; 14 Abt 1m12.642s; 15 Massa 1m12.656s;

 16 Rowland 1m12.660s; 17 Turvey 1m12.671s; 18 Jani 1m12.732s; 19 Hartley 1m13.182s; 20 Ma 1m13.205s;

 21 Calado 1m13.430s; 22 Muller 1m13.703s; 23 de Vries 1m14.082s; 24 Vergne 1m12.327s*.* grid penalty.

CHAMPIONSHIP

1 Sims 35; 2 Vandoorne 30; 3 Bird 26; 4 Rowland 22; 5 di Grassi 18; 6 Lotterer 18; 7 Mortara 18; 8 Frijns 10; 9 de Vries 8; 10 Abt 8.

RACE CENTRE SUPER GT/DTM



Pinch yourself: Dream Race becomes reality

SUPER GT x DTM DREAM RACE FUJI (JPN) 23-24 NOVEMBER

The much-heralded tie-up between DTM and Super GT in the form of the Class 1 concept has often been frustrating. It took seven years of planning to reach the Fuji Dream Race, with Audi and BMW often blaming Mercedes dragging its heels before its end-of-2018 DTM exit as a key factor.

Regardless of the whys, it took Gerhard Berger's appointment as DTM boss in 2017 for the push to Class 1 to be reignited, and it was no surprise that he took a moment last Saturday to reflect on the fruition of his work as he stood on the grid, overlooked by the famously passionate Japanese fanbase in the grandstands.

"Honestly, I was standing on the starting grid and when I saw all the different manufacturers coming in with all the colours and brand names, I think that's what we need to focus everything on," he said. "We needed to hang on until we made it happen. It's hard sometimes, and frustrating, but when you see the result of it as today, that's the way to go. Go for this category in motorsport -100% sure."

The official attendance last weekend was 51,800, around 80% of what Fuji's actual Super GT round attracted, which is massively boosted by it taking place during the May Golden Week holiday period and by being the longest race of the season. That is a seriously impressive starting point.

Another promising aspect is that all the manufacturers have thoroughly bought into the process. Audi and BMW decided to send its most prominent figures to Fuji over the Formula E season opener in Saudi Arabia, such is the belief that Class 1 is of vital importance to the DTM's future. On top of that, Autosport understands that Audi and BMW operated an open-door policy in helping Super GT makes Nissan, Lexus and Honda understand the intricacies of the DTM's single-spec Hankook tyre compared to Super GT's tyre war. And while Super GT certainly isn't going to move away from its endurance racing roots, those within the Japanese series fully enjoyed the quirks of a sprint format, with drivers and race crews liking the challenge.

While Hockenheim's toe-in-the-water exercise for Super GT last month ultimately underwhelmed – apart from Jenson Button's heroics in the Team Kunimitsu Honda – the competition was far closer at Fuji. The home advantage certainly helped, as did the knowledge of the Hankooks picked up by Honda, Lexus and Nissan in Germany. Several DTM drivers said they were impressed with how quickly the Super GT teams got to grips with the most challenging factor of tyre

BEIL

Berger and Bandoh



WEEKEND WINNERS

SUPER GT x DTM DREAM RACE FUJI (JPN) Race 1 Nick Cassidy TOM'S (Lexus LC 500) Race 2 Narain Karthikeyan Nakajima Racing (Honda NSX-GT)



management, regardless of the series having been given four tyre testing sessions to get up to speed.

But there is still a disparity that will need to be reviewed: equalisation. It is understood that Audi was a vocal proponent of a Balance of Performance after it became clear that the DTM cars could match the Super GTs on one-lap pace but, particularly in the dry, were no match for Super GT's higher power and complex aerodynamics over a stint. BoP talks on Saturday night proved a dead end. And frankly, that BoP push was in poor taste considering Super GT decided against such measures at Hockenheim as it did not want to influence the DTM season finale by running at the front.

In the end it mattered little, as changeable conditions and safety-car-affected racing allowed the DTM brigade to stay artificially close and run in the top 10 consistently, but this cannot be relied on in the future.

Fuji was a clear success and vindication of a long path to reach it, but the next stages are

Cassidy and Karthikeyan avenge for the Japanese



Revenge. That's how Super Formula champion Nick Cassidy described both his pole position and victory on Saturday. It was vindication for Super GT after its subdued and difficult learning weekend at Hockenheim's DTM round last month.

Later on, Honda hero Naoki Yamamoto provided a similar sly dig towards the DTM when he made a tongue-in-cheek comment that Super GT racing is more exciting.

Exhibition race or not, the drivers did not race like they were in a parade, and two frenetic and engrossing races went the way of Super GT as the TOM'S Lexus of Cassidy took victory on Saturday, and Narain Karthikeyan ensured a clean sweep with a win in his Nakajima Racing Honda the next day.

On Saturday, Super GT largely ran unchallenged as the DTM field could not convert promising onelap pace into race-distance speed. Cassidy built a lead of over five seconds from pole, but that was erased when Daiki Sasaki stopped his Impul Nissan on the start/finish line inside the final 10 minutes, prompting a three-minute dash to the flag following a safety car.

But Cassidy held on to take victory by less than half a second ahead of

"It was OK, I know my ability," said Cassidy about his DTM experience. "But the frustrating part was people questioning my ability after Hockenheim, which I think is not fair. Remember Valtteri Bottas this year on the radio said, 'To whom it may concern...?? I felt like the same."

There was no doubt plenty of swearing across the field on Sunday in a crazy finale in which the DTM hit back against Super GT. Three safety cars interrupted the race, and led to several DTM and Super GT runners varying their strategies between a conventional one-stop or an unorthodox two-stop effort.

Karthikeyan was able to remain unscathed after holding off an early challenge from 2018 Super GT champion Yamamoto that came to a halt after Loic Duval – who had taken pole in his DTM Team Phoenix Audi – caused the first safety car following a puncture while running fourth. Audi's struggle with tyres continued when 2019 DTM king Rene Rast had a blowout and caused a second safety car, before three Lexus Super GT runners – ex-McLaren F1 driver Heikki Kovalainen, Kazuya Oshima and Yuji Kunimoto – collided at the Turns 13/14 complex.

That chaos helped mitigate the

unclear. Press conferences at Hockenheim and Fuji have been vague and confusing. Berger and the DTM manufacturers appear keen for a 'car exchange', allowing more brands in both series without compromising the grid size, while his Super GT counterpart Masaaki Bandoh appears keen for a winter series competition.

Next year there will be progress as Super GT moves fully in-line with the Class 1 regulations, but discussions over 2020's joint racing and further collaboration remain frustratingly far from a resolution. TOM ERRINGTON Koudai Tsukakoshi in the Real Racing Honda and the NSX of Yamamoto.



DTM's disadvantage, and Duval along with BMW pair Marco Wittmann and Kamui Kobayashi spent the final laps in contention for a podium. Wittmann earned second after Duval was penalised for overtaking the BMW off track at the final corner, moments after the Audi driver was hit twice by an aggressive Kobayashi in a fight for third that ultimately went Duval's way. TOM ERRINGTON

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WORLD OF SPORT

Holden double can't stop Ford title success

AUSTRALIAN SUPERCARS NEWCASTLE (AUS) 23-24 NOVEMBER ROUND 15/15

Triple Eight extended its winning streak to seven straight races with a double, but still couldn't stop DJR Team Penske from sealing the 2019 teams' championship.

Triple Eight's Red Bull Holden squad needed a perfect Newcastle weekend to retain its spot at the very end of the pitlane, but its hopes were essentially dashed after a rollercoaster of a Saturday.

It all started with a frantic showing from Shane van Gisbergen in qualifying. The Kiwi went within seconds of missing the Shootout, only scraping in with the 10th best time right at the flag after complaining that he couldn't get a gain on new rubber. On the other side of the garage, Jamie Whincup took provisional pole without even bothering with a final run.

Some handy set-up work before the single-lap dash worked for van Gisbergen, who became the first driver since 2009 to end up on pole after running first. Whincup couldn't quite make it a Triple Eight front row, missing out on second to Scott McLaughlin's Penske Ford, but was parked behind his team-mate for the start.

Lap one couldn't have gone better for the factory Holdens. Van Gisbergen played the run to the first corner perfectly, positioning his car just right to delay McLaughlin's turn-in and open the door for Whincup. A Triple Eight 1-2 seemed inevitable for much of the 250km race. Having McLaughlin and Fabian Coulthard in third and fourth meant it wasn't a slam dunk in terms of the teams' title fight, but it at least would have made things interesting for the Sunday.

Then, with 20 laps to go, Whincup lost concentration and outbraked himself



into Turn 7. He followed that up by undercooking the flick spin, which meant he needed to grab reverse. By the time Whincup resumed he was seventh, and Scott Pye demoted him to eighth before the finish.

The uncharacteristic error left two Penske Fords on the podium and all but handed the sought-after final garage to the Ford squad.

Van Gisbergen's qualifying woes returned on Sunday, and this time there was no last-gasp recovery. He was left stranded in 18th on the grid, which became 21st thanks to a penalty for impeding Will Davison.

Whincup started from pole and cruised to victory, but it didn't matter. A second for Coulthard and a fourth for McLaughlin, as van Gisbergen's valiant comeback effort only went as high as seventh, was more than enough for DJR Team Penske to add the teams' silverware to the drivers' title already won by McLaughlin.

Tim Slade capped a difficult season with a fine third – and then promptly decided to use the press conference to confirm that it was his last race for Brad Jones Racing. He's expected to put himself on the enduro co-driver market and expand on his overseas GT programme with HubAuto. ANDREW VAN LEEUWEN

WEEKEND WINNERS

AUSTRALIAN SUPERCARS

NEWCASTLE (AUS) Race 1 Shane van Gisbergen Triple Eight (Holden Commodore ZB) Race 2 Jamie Whincup Triple Eight (Holden Commodore ZB)

INTERCONTINENTAL GT CHALLENGE

KYALAMI 9 HOURS (ZAF) Nick Tandy/Mathieu Jaminet/Dennis Olsen Frikadelli Racing (Porsche 911 GT3-R)

ASIAN LE MANS SERIES

SHANGHAI (CHN)

- LMP2 Roman Rusinov/James French/ Leonard Hoogenboom Algarve Pro Racing/G-Drive (ORECA-Gibson 07)
- LMP3 Nigel Moore/Martin Hippe Inter Europol Competition (Ligier-Nissan JSP3)
- **GT** Ross Gunn/Tomonobu Fujii/ Satoshi Hoshino D'station Racing (Aston Martin Vantage GT3)



BRAZILIAN STOCK CARS GOIANIA (BRA) Race 1 Gabriel Casagrande Crown Racing Race 2 Felipe Fraga Cimed Chevrolet Racing

SUPER TC2000 RIO CUARTO (ARG) Marcelo Ciarrocchi Citroen Total Racing (Citroen C4 Lounge)



For full results visit motorsportstats.com

INSIGHT

HONDA HERO MARQUEZ IS THE GIANT OF THE AGE

SEASON REVIEW

No one could stop Marc Marquez as he racked up his sixth MotoGP title in seven years. But now he's looking over his shoulder to an unexpected rival

LEWIS DUNCAN

motorsport

PHOTOGRAPHY GOLD AND GOOSE

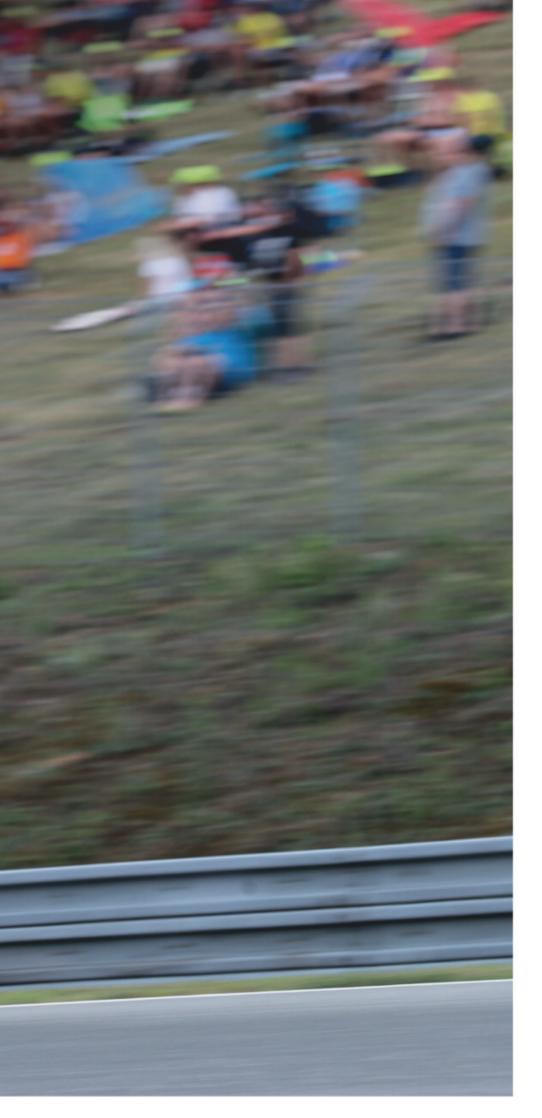


Cor Ri

MOTOGP







mbarrassing. That is perhaps the only word left to describe Marc Marquez's talent – it is embarrassing how good he is. For the sixth time in seven years, he stood atop the world as its greatest motorcycle rider, doing so in utterly dominant fashion in a season that must surely rank among the greatest for any rider ever.

If the statistics -12 wins and six seconds in 19 races, a record 420 points, an eighth career title sealed with four races to spare aren't enough to convince you, then perhaps the fact that the Honda he was riding really shouldn't have been remotely capable of such devastation will. HRC's search for power to match Ducati and allow Marquez to risk less on the way into corners was successful, but came at the cost of consistent engine braking and a bike that could actually turn.

Ε

Save for a third place in the Qatar season opener for LCR's Cal Crutchlow, no 2019-spec-Honda rider made it into the top five during the first eight races – except for Marquez. He opened the season beaten by Andrea Dovizioso on the Ducati, missing out in a carbon copy of the last-corner battle from 2018. But he responded in Argentina with a dominant win.

The defining turning point for Marquez came when his title opponents were wiped out by his Honda team-mate Jorge Lorenzo at Barcelona. But, really, the writing was on the wall in Argentina. Though typically strong there, it was the way that victory came to pass – responding emphatically to his Qatar last-lap defeat - that was so indicative of how the year would pan out.

A crash out of a commanding lead at his stomping ground of CoTA in Texas offered the rest a glimmer of hope: perhaps

"'NEAREST RIVAL' IS A **GENEROUS TERM AT BEST** TO DESCRIBE DOVIZIOSO"

Marquez wasn't so bulletproof. But he bounced back to win the next two races at Jerez and Le Mans, finished second at Mugello, and won at Barcelona and the Sachsenring to round off the first half of the year 58 points clear of nearest rival Dovizioso.

'Nearest rival' is a generous term at best to describe Dovizioso. The now-customary Ducati win in Qatar aside, it wouldn't be until the 11th round in Austria that he would stand on top of the podium again. Between that came a run of solid results, which included four podiums. But he was beaten at Mugello by teammate Danilo Petrucci, and never looked much of a match for Marquez on pure pace on a consistent basis. Last year's Ducati was a solid all-round package. But its main issue of weak mid-corner >>

nunit

Losail **1** Andrea Dovizioso 2 Marc Marguez

Rio Hondo 1 Marc Marguez 2 Valentino Rossi

Austin **1** Alex Rins 2 Alexander Rossi

Jerez **1** Marc Marguez 2 Alex Rins

Le Mans **1** Marc Marguez 2 Andrea Dovizioso

3 Cal Crutchlow Marquez and Dovizioso lock horns for the second year in succession in a thriller, with the Ducati rider resisting a final-corner attack from Marquez to pinch victory by just 0.023s. Crutchlow completes the podium just months after an ankle injury.

3 Andrea Dovizioso

Marquez obliterates the field by close to 10 seconds to take a four-point lead over Dovizioso in the standings, while Rossi throws his hat into the ring as a potential title threat with his 233rd podium in runner-up spot. Third for Dovizioso at one of Ducati's weakest tracks hints that the GP19 is the step forward needed to fight Marquez.

3 Jack Miller Marquez's unbeaten CoTA run comes to an end with a crash out of a commanding lead, paving the way for Rins to grab his first MotoGP win after beating Rossi in a tense scrap. Fourth for Dovizioso gives him a three-point lead in the championship, with Marquez slipping to fourth behind Rins and setting up a four-way title battle heading to Europe.

3 Maverick Vinales

Rookie Quartararo's maiden pole makes all sit up and take notice, though a technical issue cruelly denies him a first podium. Marquez moves back into the series lead by a point from Rins with another dominant win, while Vinales brushes off his tough season start in third. Tenth for Honda wildcard Bradl shines the spotlight on 12th-placed Lorenzo's woes.

3 Danilo Petrucci

Marquez overcomes an early surge from Miller to bag his third win of the year and take an eight-point lead, with Dovizioso moving up to second in the standings after finishing second ahead of team-mate Petrucci, who is now close to securing his Ducati future. Pol Espargaro gives the evolving KTM its best dry-weather result, 5.9s from the win in sixth.



turning prevailed, and its one strength in raw power over the Honda was now gone.

Marquez brushed off his Austrian defeat to Dovizioso, for it hardly mattered in the grand scheme of things. Dovizioso was still 58 points behind, and any remote outside hopes he had were demolished when he suffered a frightening airborne accident on the first lap at Silverstone. The Honda rider won at Misano, Motorland Aragon and Buriram to seal the title with four races to spare, and added wins at Motegi and Phillip Island to his scorecard for good measure.

Perhaps the established stars have no more to offer him. Dovizioso secured runner-up spot again, but 151 points adrift, and it seems that Ducati has gone as far as it can with the 33-year-old. Yamaha's Valentino Rossi threatened a title tilt after a strong brace of seconds from the first three races put

"LORENZO'S HONDA SWITCH WAS MOUTHWATERING, BUT IT'S PROVEN A NIGHTMARE"

him in the mix. But he struggled to ride around the M1's traditional issues of lack of power and poor tyre life, while a run of three DNFs from Mugello to Assen ended all hopes. Petrucci may have beaten Marquez at Mugello, but consistency eluded him all year and it's hard to imagine him ever getting to the level required to fight for a world championship.

Had Ducati shown some more patience when deciding the fate of Lorenzo, both of their situations would have been drastically different. Lorenzo's switch to Honda was mouthwatering at first, but it's only proven to be a nightmare. This once-great MotoGP champion's struggles to adapt to the tough RC213V, coupled with numerous injury woes (a back fracture forcing him out of four races) ultimately ground his confidence to nothing and he failed to even get into the top 10. Marquez branded his plight "unimaginable". So too was it unimaginable to think at the start of 2019 that this would end up being Lorenzo's last season in MotoGP. With his fire well and truly doused, Lorenzo announced on the eve of the last race that it was time to go. An undoubted legend, his void will not easily be filled.

KTM's Johann Zarco suffered similar turmoil to Lorenzo, and quit mid-season before being dropped altogether after Misano. Lorenzo's announcement seemed well timed. Zarco had shown solid form on the year-old LCR Honda in place of the injured Takaaki Nakagami and was instant favourite to take the vacant works Honda seat — unjustifiably, to many of his peers. He has

Mugello 1 Danilo Petrucci 2 Marc Marguez

Barcelona 1 Marc Marquez 2 Fabio Quartararo Assen 1 Maverick Vinales 2 Marc Marquez Sachsenring 1 Marc Marquez 2 Maverick Vinales Brno 1 Marc Marquez 2 Andrea Dovizioso

3 Andrea Dovizioso3Petrucci seals aCsecond year withpDucati in stunninginfashion, beatingeMarquez by 0.043stoto claim his maidenoMotoGP victory. ThirdRfor Dovizioso meansMMarquez is only 12spoints in front, whilenRossi's hopes fadenwith the first of threensuccessive DNFs.K

o 3 Danilo Petrucci

Quartararo's second pole precedes his maiden podium in second, while Marquez eases to his fourth win after team-mate Lorenzo wipes out Vinales, Dovizioso and Rossi on lap two. This gives Marquez control of the standings with a 37-point margin over Dovizioso. Zarco manages his only top- 10 result of the season as his KTM form improves a little. **3 Fabio Quartararo** The difficult Honda means a repeat of Barcelona is not possible for Marquez. Vinales seizes the opportunity and claims his and Yamaha's first win of the year, poleman Quartararo completing the podium after a stint in the lead. Dovizioso is 44 points behind Marquez. Lorenzo suffers a back fracture in a heavy FP1 crash that effectively ends his career.

3 Cal Crutchlow

Marquez remains 'Lord of the Ring' and cruises to his fifth win of 2019 ahead of Vinales to take a 58-point lead over Dovizioso into the summer break. Crutchlow grabs his second podium, while Dovizioso expresses frustration at Ducati after finishing over 16s adrift of Marquez in fifth. Quartararo suffers his first crash of the season.

3 Jack Miller

A half-dry, half-wet Brno circuit leads to a delay to the race start, but Marquez once again proves master of iffy conditions and is untouchable on the way to his 50th MotoGP win. Dovizioso returns to the podium in second, though is now 63 points behind Marquez. Zarco fades to 14th after qualifying third in a wet session.



now found a home at Avintia Ducati (a move he snubbed upon first link), while Marquez's 2019 Moto2 champion brother Alex has been chosen to replace Lorenzo (see page 42). A bold decision from both parties, and it's hard to imagine Marquez Sr allowing a repeat of Lorenzo's 2019 to befall his brother.

As the establishment stumbled, it was the future generation that provided Marquez with his stiffest opposition on track.

Alex Rins and Suzuki stepped up in a big way when Marquez fell in Texas, and the 23-year-old resisted Rossi's advances to secure his first MotoGP win. His form was patchy for much of the rest of the season, but flashes of brilliance vindicated Marquez's pre-2019 claims that the Suzuki/Rins pairing were ready for action. At Silverstone, Rins ran Marquez hard for the entire race and absorbed the pressure of the situation to beat him by 0.013s in a thrilling dash through Woodcote to the chequered flag. With more consistent form, Rins could well have given Marquez something to worry about in the championship.

Largely struggling to replicate his early-2017 form since joining Yamaha, a more considered Maverick Vinales calmly ground away on an ever-improving M1 in 2019. Rejecting Yamaha's mid-season updates in order to focus on simply understanding what he already had, Vinales became a consistent podium visitor in the second half of the year. He paired his early-season Assen win with a dominant one at Sepang, giving his and Yamaha's biggest signal that both really were true frontrunners again. This form allowed him to steal third from Rins in the standings - a solid platform from which to launch a proper title bid next year.

But Vinales isn't the main threat Marquez is concerned about... The new Yamaha-backed Petronas Sepang Racing Team made a questionable decision to sign rookie Fabio Quartararo for 2019. He had just one race win to his credit after an underwhelming time in Moto2 and Moto3, but this was a kid who had most pegging him as the next Marquez from his stellar run in his pre-GP career in the CEV championship. SRT management knew such talent still existed within, and the rider-friendly M1 would bring that out of him.

And so it transpired. Quartararo took pole at Jerez and did so again at Barcelona, before taking second place — his maiden podium — just two weeks after surgery on an arm-pump issue. He led at Assen from pole before finishing third, and led at Yamaha's weakest track at the Red Bull Ring before finishing third ahead of the works M1s. He locked horns with Marquez at Misano and in Thailand, coming up cruelly short on the final lap on both occasions. But the point had been proved: he is more than capable of playing Marquez's game.

In some ways, they are similar characters. Quartararo spent most of the year on Yamaha's lesser 'B-spec' M1: a 2016 chassis with slightly detuned 2019 engines. Yet he still managed six poles, seven podiums and came out as top Yamaha runner on six occasions »

Red Bull Ring 1 Andrea Dovizioso 2 Marc Marquez Silverstone 1 Alex Rins 2 Marc Marquez **Misano** 1 Marc Marquez 2 Fabio Quartararo Motorland Aragon 1 Marc Marquez 2 Andrea Dovizioso **Buriram** 1 Marc Marquez 2 Fabio Quartararo

3 Fabio Quartararo Dovizioso and Marquez engage in a thrilling duel for victory that culminates in the Ducati rider taking the win with a successful last-corner raid. Quartararo is third after leading at Yamaha's weakest track, while fellow rookie Oliveira is an impressive eighth on the Tech3 KTM. Zarco terminates his two-year contract with KTM on Sunday evening.

3 Maverick Vinales

Another race-long duel involving Marquez, this time with Rins. The Suzuki rider chases hard and snatches a second win of 2019 from Marquez by 0.013s after nailing his drive through Woodcote. Dovizioso walks away from a terrifying airborne shunt after running over a crashing Quartararo's bike on the opening lap. Lorenzo returns, taking 14th. **3 Maverick Vinales** Marquez battles with Quartararo all race, and gets the better of the rookie with just three corners to go to secure his seventh win of the year. Sixth for Dovizioso means Marquez's championship lead opens up to 93 points. Pol Espargaro is seventh after qualifying a surprise second. KTM team-mate Zarco is 11th in his last race on the RC16.

3 Jack Miller

A dominant victory for Marquez from pole allows him to put one hand on the championship, as he takes a 98-point lead over Dovizioso. The Ducati rider finishes second, beating Pramac counterpart Miller and Yamaha's Vinales late on. Zarco's KTM replacement Kallio is 17th, while Lorenzo's form continues to flatline – 46s off Marquez in 20th.

3 Maverick Vinales

Marquez brushes off a 26*g* crash in FP1 to go toe to toe with Quartararo once more, with the pair running side by side into the final corner of the race. Marquez prevails to deny Quartararo a maiden win and to secure his sixth MotoGP title in seven years, allowing him to take over from Mick Doohan as Honda's most successful rider ever.



ANOTHER MARQUEZ WINS IN MOTO2 – AND JOINS HONDA

There'll be two Marquez brothers in the works Honda MotoGP team in 2020, with Alex Marquez stepping up alongside his older sibling Marc. Marquez Jr became a surprise link to the seat vacated by the retiring Jorge Lorenzo almost immediately, with the deal officially signed on the Monday evening following the Valencia finale.

It's easy to conclude that the Marquez name has carried Alex to one of the most prestigious bikes on the grid. But he proved across the 2019 season in Moto2 that he was deserving of the shot. The 2014 Moto3 champion, his time in Moto2 had been plagued by underachievement and inconsistency, but he bounced back from a disappointing opening three rounds in 2019 to claim five wins in six races from France to the Czech Republic.

No more wins would follow, but Marquez brushed aside a crash at Silverstone and a difficult Australian Grand Prix to hold title rival Tom Luthi at bay in Malaysia and become the first rider to have won the Moto3 and Moto2 championships.

Alex may have spent much of his career unfairly being accused of riding in his brother's shadow, but Honda boss Alberto Puig insists "if Alex had not achieved the Moto2 world title we would never have offered him this opportunity". Very much leaping into the lion's den at HRC, Alex proved in his Moto2 title tilt that he is capable of stepping up to the plate. - all while still learning his trade in MotoGP. After the mid-September Misano race, Marquez marked him out as a title threat for 2020 and an immediate problem in his quest for wins. Knowing they're onto a good thing, Petronas and Yamaha have put together the budget to ensure Quartararo has full-works machinery.

During the Red Bull Ring weekend, Crutchlow said that Marquez — now Honda's most successful rider ever — was riding "like f*****g Houdini". Dovizioso said later in the season that it's "hard to know" how to beat him. Though we live amid a halcyon period for MotoGP, the problem for the rest is that

"MARQUEZ HAS HAD A WAKE-UP CALL THAT HIS HARDEST BATTLE IS ABOUT TO BEGIN"

Marquez is currently too good and is only getting better, to the point where he verges on being unbeatable.

But the emergence of Quartararo has certainly provided a wake-up call for Marquez that his hardest battle is about to begin. Marquez attempted to get into Quartararo's head during qualifying for the penultimate round at Sepang, but ended up on the floor as he unsuccessfully tried to shadow the SRT rider, who went on to secure pole. He's fast, as well as mentally resilient: Marquez's true usurper looks to have arrived.



Motegi

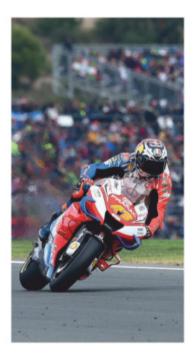
1 Marc Marquez 2 Fabio Quartararo **3 Andrea Dovizioso** Marquez comes under little threat on Honda's track to win his fourth race in a row and claim the manufacturers' title for HRC. Second for Quartararo bags him rookie of the year honours, while Dovizioso takes his 100th career podium in third.

Phillip Island

1 Marc Marquezo2 Cal Crutchlow

Sepang 1 Maverick Vinales 2 Marc Marquez

Valencia 1 Marc Marquez 2 Fabio Quartararo



a Dovizioso 3 Jack Miller

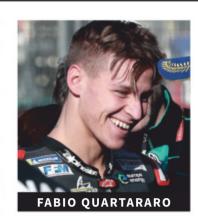
Vinales tries to break away from a pole secured in a weather-postponed qualifying, but is run down by Marquez and crashes on the final lap trying to repass the Honda. Crutchlow inherits second at the track where he shattered his ankle in 2018, with Miller third. Zarco is 13th in his first race on the LCR Honda. **3 Andrea Dovizioso** Vinales passes a fast-starting Miller on the first lap to dominate for his second win of the year and put himself in the hunt for third in the standings. Marquez comes from 11th after a crash in qualifying to second on lap one and finishes there. Dovizioso resists Rossi to claim the final podium spot. **3 Jack Miller (right)** Quartararo leads from pole in the opening stages, but is reeled in by Marquez, who eases to his 12th win of the season. Quartararo holds onto second for his seventh podium, and Miller grabs third. Vinales secures third in the championship with sixth, while Lorenzo's final race ends in 13th.

AUTOSPORT'S TOP 10 RIDERS



MARC MARQUEZ

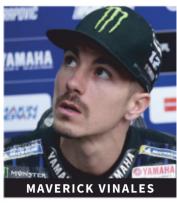
The unsurprising choice for our top MotoGP rider of the year, Marquez continued to rewrite history in 2019. Closing in on Rossi's once-thought insurmountable records, there is no question that Marquez is now the greatest rider of the modern era.



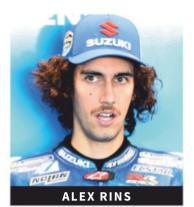
The surprise signing emerged as 2019's surprise package, as Quartararo enjoyed the most successful rookie season for a rider since Marquez's. His ability to immediately move on from knocks made him a formidable force the second half of the campaign.



B Marquez's nearest challenger again, Dovizioso produced one of his most complete seasons from a riding perspective and showed flashes of brilliance. Ducati's shortcomings and an inability to ride around them meant he also underachieved.



Though a largely difficult season for the Yamaha rider, Vinales's new working methods still allowed him to show his class with two wins. Had he overcome his usual starting issues earlier in the season, more could have been on offer.



5 The 2019 season was a breakthrough – if somewhat inconsistent - year for Rins in MotoGP. Poor qualifying form left him with too much work to do too often in races,

while his race-winning

form deserted him later

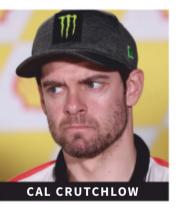
in the campaign.



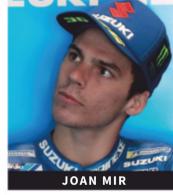
G Miller's first year on full works Ducati machinery at Pramac proved to be his best in MotoGP. Scoring five podiums, including his first dry rostrums, he may well have ended up secondbest Ducati rider with slightly more consistent form.



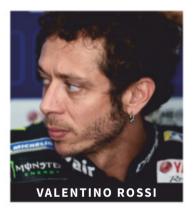
KTM's shining light, Espargaro's tireless efforts gave the Austrian marque its best-ever dry result of sixth in France, and a front-row start at Misano. The RC16's disparity in pace from Saturday to Sunday did let stronger results go missing.



In a season where all Honda riders struggled, LCR's Crutchlow gritted his teeth through the pain of a severe ankle injury to be the only other RC213V rider to stand on the podium to vindicate his second-best Honda rider claims.



G This year's underrated debutant, Mir managed 10 top 10 finishes and would have had top rookie honours without Quartararo's presence, even with his two-race injury layoff. Suzuki looks to have race winners in its ranks next season.



The 40-year-old ended the year thirdbest Yamaha rider as he largely struggled to ride around the M1's issues. He never looked capable of winning, and his largely uninspiring form suggests he may never do so again.

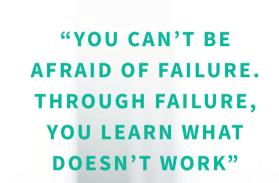
RI	DERS' CHAMPIONSHIP																					
PO	RIDER	TEAM/BIKE	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	PTS
1	Marc Marquez (ESP)	Honda	2	1	R	1	1	2	1	2	1	1	2	2	1	1	1	1	1	2	1	420
2	Andrea Dovizioso (ITA)	Ducati	1	3	4	4	2	3	R	4	5	2	1	R	6	2	4	3	7	3	4	269
3	Maverick Vinales (ESP)	Yamaha	7	R	11	3	R	6	R	1	2	10	5	3	3	4	3	4	R	1	6	211
4	Alex Rins (ESP)	Suzuki	4	5	1	2	10	4	4	R	R	4	6	1	R	9	5	7	9	5	5	205
5	Fabio Quartararo (FRA)	Petronas SRT Yamaha	16	8	7	R	8	10	2	3	R	7	3	R	2	5	2	2	R	7	2	192
6	Danilo Petrucci (ITA)	Ducati	6	6	6	5	3	1	3	6	4	8	9	7	10	12	9	9	R	9	R	176
7	Valentino Rossi (ITA)	Yamaha	5	2	2	6	5	R	R	R	8	6	4	4	4	8	8	R	8	4	8	174
8	Jack Miller (AUS)	Pramac Ducati	R	4	3	R	4	R	5	9	6	3	R	8	9	3	14	10	3	8	3	165
9	CalCrutchlow (GBR)	LCRHonda	3	13	R	8	9	8	R	7	3	5	R	6	R	6	12	5	2	R	R	133
10	Franco Morbidelli (ITA)	Petronas SRT Yamaha	11	R	5	7	7	R	R	5	9	R	10	5	5	R	6	6	11	6	R	115

11 Pol Espargaro (KTM) 100; 12 Joan Mir (Suzuki) 92; 13 Takaaki Nakagami (LCR Honda) 74; 14 Aleix Espargaro (Aprilia) 63; 15 Francesco Bagnaia (Pramac Ducati) 54; 16 Andrea Iannone (Aprilia) 43; 17 Miguel Oliveira (Tech3 KTM) 33; 18 Johann Zarco (KTM/LCR Honda) 30; 19 Jorge Lorenzo (Honda) 28; 20 Tito Rabat (Avintia Ducati) 23; 21 Stefan Bradl (Honda) 16; 22 Michele Pirro (Ducati) 9; 23 Hafizh Syahrin (Tech3 KTM) 9; 24 Karel Abraham (Avintia Ducati) 9; 25 Sylvain Guintoli (Suzuki) 7; 26 Mika Kallio (KTM) 7.

Q&A Eric Holthusen

Autosport sat down with the chief technology officer of Petronas Lubricants International to discuss the company's role in helping Mercedes to its sixth straight constructors' title

STUART CODLING





s Formula 1's hybrid-engine era reaches maturity, fuel and lubricants have become a key battleground as rival technology partners vie to unlock fresh development paths. Autosport visited the Petronas Global Research and Technology facility in Turin

to meet Eric Holthusen, chief technology officer of Petronas Lubricants International, who explains his company's behindthe-scenes role in Mercedes' record-breaking run of success.

AUTOSPORT How do you measure the fuel efficiency of a modern Formula 1 power unit?

ERIC HOLTHUSEN We have a full dyno rig here in which we measure the emissions to calculate the fuel consumption, using tools such as gas chromatography. We look at the gases and the unburned hydrocarbons — and we can break those down a lot further because the term 'hydrocarbons' covers a fairly wide spectrum of molecules. It's a much more precise method of establishing fuel consumption than measuring flow rates or the weight of the fuel.

AS Could you, hypothetically speaking, produce different lubricants to suit the styles of different drivers?

EH It's possible, but we haven't done it yet. If there was enough of a differentiation between the drivers and the demands they place on the car, we would have gone that way. From a technology perspective we could certainly do it.

AS Did the increase in the F1 fuel limit from 105kg to 110kg this season have any bearing on development? Did you feel you could focus on characteristics other than energy density? EH It opens the toolbox a little bit. Provided you can get the car comfortably to the end of the race, you can think about components that are probably lighter. The challenge is always energy and octane. Usually the high-octane components are low energy. You have to walk that line, find the optimum for the engine. If you're given a bit more space there, you can throttle back the focus a little bit on energy content and look into octane again.

AS Andy Cowell of Mercedes-Benz High Performance Powertrains likes to say: "It's all about the bonfire." How involved are you in the power unit concept, particularly given some of the innovations in the ignition area these past couple of seasons?

EH We're very much involved in that. During development, Brixworth runs single-cylinder test beds that mimic the combustion chamber of the full engine. It's our fuel being used in there, so they can give feedback that helps us. It's co-engineering, so when they change their combustion chamber design it gives us a new degree of freedom with the fuel to find an optimum solution. We can even bring back candidates that we might have rejected previously because they weren't optimal for a particular design – a new combustion chamber is an opportunity to look at every component again.

AS You've produced more than 100 different fuel blends since becoming a technical partner of Mercedes. How do



knowledge. I've been asked what the barriers to entry are for a newcomer in this field, and really it's not a financial question but one of experience, data and brainpower.

AS Last season, after the Belgian GP where it looked like Ferrari had got the upper hand over Mercedes, Toto Wolff sent an email to all staff urging them to pull together, dig deeper and push harder to secure victory. Did you receive anything similar? EH All the time! It's a constructive challenge. Toto pushes us just as much as he pushes all the other technology partners and providers who are involved in building the car. That's one of the secrets of the Mercedes team's success. Toto never sits back – he knows everyone has to raise their performance constantly.

AS The culture of the Mercedes team seems to be one that embraces the value of failure as a learning experience. It doesn't tear itself apart in recrimination when things go wrong. Is that how you approach the research process?

EH In science and technology you can't be afraid of failure. Through failure, you learn what doesn't work, so you take the benefit in experience, and then try something new.

AS How much attention do you pay to what your competitors are doing in terms of innovations such as oil burning?

EH We will always try to understand what the others do and what's new. We've been in a privileged position to be ahead of the game. The use of oil as a combustion enhancer was of course something we knew about as well, though I think perhaps some have driven it to the extreme. There's also knowledge in that.

AS With ideas like that, do they originate with you or is it Brixworth saying, "We think Ferrari is doing something, how can we do that?"

EH It wasn't an idea we copied from anyone else — it might have been copied from us or others might have had a similar idea at around the same time. We have a co-engineering approach with Brixworth where we all sit down to discuss how we can improve the 'bonfire', as Andy calls it. And sometimes you find things. There may be molecules you can add here or there that can help, perhaps not carrying energy but improving the quality of the combustion.

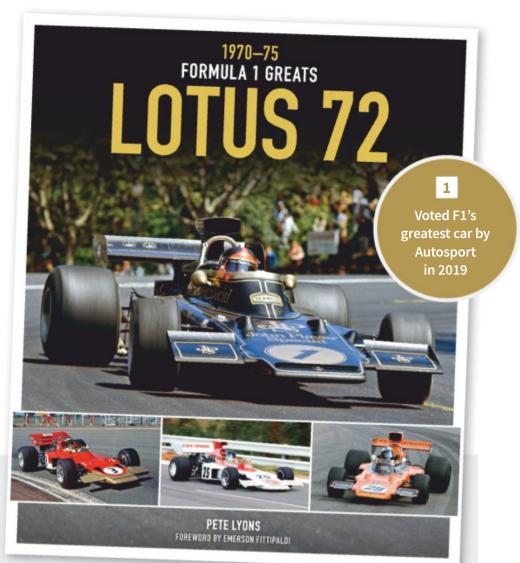
you track the different performance characteristics?EH With all the simulations we do, as well as the on-track performance, managing the data becomes increasingly important. It's incredibly valuable to be able to call on that experience and



AS In terms of these additives, how much impact can the fuel have on engine life or is that largely a function of the lubricant? EH The fuel can have an impact on engine life, that's why you have to be very careful with what you use. If you use certain products, certain chemistry, you can wash away the film of the lubricant from the cylinder walls. That's a no-no. These days, the prime objective is to protect the engine and make it last for seven or eight races plus all the qualifying and practice sessions, and enable it to sustain a high level of performance throughout that life. The development process we're taking today is to prioritise durability – like they say, to finish first, first you must finish. Once you know the engine can last, then you can start making tweaks here and there to unlock more performance. *M*

CHRISTMAS GIFT GUIDE

As the countdown to the big day begins, Autosport has collated a list of the best gift ideas for motorsport fans...



BOOKS

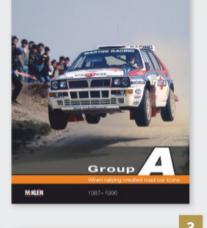
The first instalment of Evro Publishing's new *Formula 1 Greats* series, Autosport's former F1 correspondent Pete Lyons has delivered a treasure trove on the two-time world championship-winning Lotus 72, which scored podiums in *six* consecutive seasons. With a foreword from paid-up 72 fan Emerson Fittipaldi, *Lotus 72: 1970-75* is a captivating 320-page labour of love.

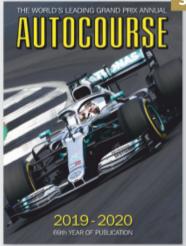
Group A: When rallying created road car icons is the latest addition to the canon of McKlein rally history, following its Group 4, Group 6 and Group B tomes. Covering the 1987 to 1996 period in depth with its customary blend of quality photos and analysis, it's a must for bobble-hatters.

Collectors of the *Autocourse* annual can get a 15% discount and free postage when ordering the 69th edition of the book direct from its website. At 408 pages, it remains the ultimate chronicle of the year.

For stocking fillers, you can't go wrong with Will Buxon's *My Greatest Defeat*, Brawn GP CEO Nick Fry's memoir of the team's fairytale 2009 season or the frank autobiography of British Touring Car Championship legend Jason Plato.

RRP £50 Website evropublishing.com



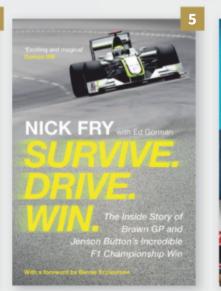


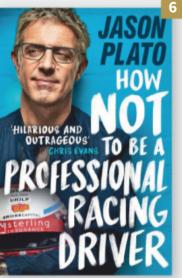
THE ESSENCE – FROM DB2 TO DB6 RRP €380 Website advantaged.eu

Clearly a labour of love, author Etienne Dricot travelled the world for 10 years to photograph the best examples of Aston Martin's production road cars, covering the period 1950-1970. This massive twovolume work of 500 pages sets out to illustrate the detail differences within each model and from

all angles. In this it achieves its purpose with aplomb. The text is minimal but the book's real strength lies in those many splendid photographs. Aston aficionados will surely regularly return to it as a work of reference and as such you may feel it is worth the hefty price tag.







ROAD CAR ICONS

RRP €49.90 **Website** mckleinstore.com

3 AUTOCOURSE 2019-2020 RRP £55 Website autocourse.com

4 MY GREATEST DEFEAT RRP £20 Website evropublishing.com

5 SURVIVE. DRIVE. WIN RRP £19 Website atlantic-books.co.uk

6 HOW NOT TO BE A PROFESSIONAL RACING DRIVER RRP £20 Website penguin.co.uk

DEFEAT Stories of hardship and hope from

Stories of hardship and hope from motor racing's finest heroes

MY GREATEST



It's been a pretty good year for motorsport racing games, with Codemasters (three) and Bigben Games (two) producing new titles. And now for the really good bit: all titles listed are available on Xbox One, PS4 and PC. Hurrah!

DiRT 2.0, the successor to Codemasters' 2016 hit, features an impressive 55 cars and makes good use of its official World Rallycross licence with cars and circuits from the 2018 season. Fans will be well-accustomed to the studio's Formula 1 franchise by now, but it continues to roll out new features. *F1 2019* allows AI drivers to switch teams for the first time and includes 2018 Formula 2 hopefuls – just the news all Ralph Boschung fans have been waiting for. Don't bother forking out extra for the Senna vs Prost mode, though. Codemasters' *GRID*

GAMES

reboot also features a head-to-head dimension with Fernando Alonso, but has plenty to satisfy fans of the arcade genre. Punchy AI and a return of the fictional San Francisco circuit from the 2008 original are a hit, but it could do with a fewmore locations.

The official *FIA European Truck Racing Championship* game is a niche addition from the French Bigben studio, but worth a punt on its own merits. If you're expecting F1 levels of performance and don't want to learn the technique for cooling your brakes, it's not the game for you. *WRC 8* is a huge improvement on recent efforts, and is a poignant last hurrah for Citroen. A revamped career mode and several bonus classic cars – including four Lancias – broaden its appeal.









PUMA MERCHANDISE

While it's unlikely that you can get Max Verstappen's driving skills in a Christmas parcel, you can at least dress like him with Puma's range of 2019 motorsport-themed apparel. Its partnerships with Red Bull Racing, Ferrari, Mercedes F1, BMW Motorsport and Porsche mean there's plenty for fans of the brands

to choose from – not least this stand-out jacket, and sleek, lightweight backpack.

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MOTORSPORT LIVE

The Motorsport Network's in-house tickets and experiences company, Motorsport Live, has exclusive offers for Autosport readers looking to get closer to the action in top international series. Fans can purchase tickets for every event on the 2020 Formula 1, MotoGP and the World Endurance Championship calendars including F1 pre-season testing in Barcelona - ranging from general admission to all grandstands, VIP hospitality and Paddock Club. An additional 20% off can be redeemed against any voucher purchased before Christmas and, from 3 December, buying any ticket for the Spanish Grand Prix (10 May) will enter you in a prize draw to win two tickets for pre-season testing (19-21 and 26-28 February). Those looking to get a behind-the-scenes look at the workshop where Max Verstappen's F1 machine is built can also book onto the Red Bull Experience, for unrivalled access to the inner workings of Red Bull Racing in Milton Keynes.

RED BULL EXPERIENCE £270 SPANISH GP TICKETS £44 upwards Website motorsportlive.com/giftguide





CHRISTMAS TREES





It may look like any ordinary Christmas tree, but bear with us. When he's not driving GT3 Mercedes around the world, former British Touring Car racer Tom Onslow-Cole (above) is selling Nordmann Fir Christmas trees under the Croft & Cole label, together with wife and motorsport PR guru Rebecca. Their Britishgrown, hand-selected trees – chosen for their low drop count - come with free next-day delivery in a bespoke hexagonal box, which is 100% recyclable. Sizes range from four-foot to seven-and-a-half-foot, with half-foot sizes to ensure each tree fits in the desired location. Simple-to-assemble stands and low-energy lights can also be purchased from its website.

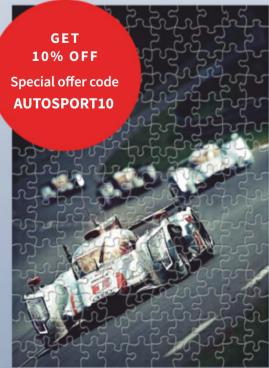
PUZZLES

There's more than one way to enjoy a great image. That's the philosophy of London-based photographic agency Xynamic, which sells images as 17x12 inch, 300-piece jigsaw puzzles as well as canvas prints. Use the discount code 'autosport10' to get 10% off any product - including the train of Audi R18s (below) at Le Mans in 2012 – until 10 December.

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£63 upwards **Website** croftandcole.com



DREW GIBSON RRP £45 Website drew-gibson.co.uk/calendar

If sportscar photography is your thing, then you can't go wrong with Drew Gibson's huge A2 Endurance calendar. Limited to just 100 copies, Gibson has selected his favourite shots from Sebring, Le Mans and Spa – and, as you might expect, it's filled with corkers.



McKLEIN RRP €39.90 Website mckleinstore.com

With the choice of two 95cm panoramic photos each month showcasing the 2019 World Rally Championship, plus a short description accompanying each image, rally fans won't be disappointed with the latest edition of McKlein's Wider View calendar.



JAKOB EBREY RRP £15 Website ebay.co.uk

Jakob Ebrey Photography was on hand to capture every round of an unforgettable 2019 British Touring Car Championship, and the best images are compiled in this A3 wall calendar. Handily, next season's dates are pre-marked, so you can't forget a round.

LEGO PORSCHE

To mark the outgoing Porsche 911 RSR,



CALENDARS

SCALEXTRIC

There's a retro theme to this year's intake of new Scalextric models. There were any number of options we could have highlighted - Jim Clark's 1963 Lotus 25 just misses out - but we've gone for two 'Legends' twin-packs, and a retro DTM racer.

The story of the McLaren F1 GTR's shock victory at Le Mans in 1995 is well-known, but its less successful return in 1996 is often forgotten. Scalextric has set this to rights by faithfully reproducing the all-star Bigazzi cars raced by

Nelson Piquet/Johnny Cecotto/Danny Sullivan and Jacques Laffite/Steve Soper/Marc Duez, which toiled to eighth and 11th places.

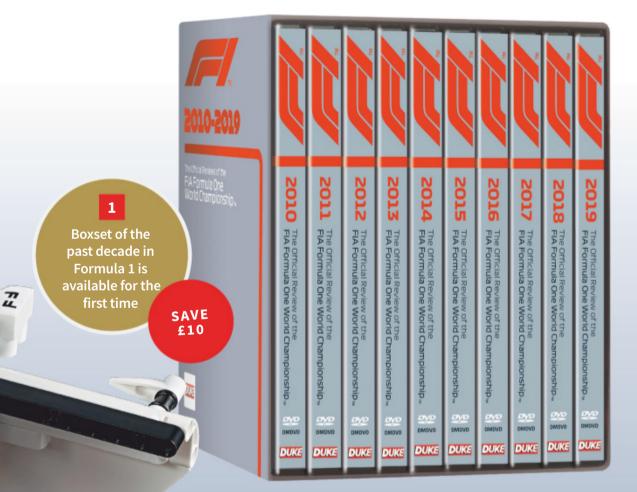
Its 2019 intake also includes Roberto Ravaglia's 1989 DTM title-winning Schnitzer BMW and a 50th anniversary commemoration of the Ford GT40's final Le Mans victory in 1969, with the John Wyer Automotive Gulf-liveried cars of Jacky Ickx/Jackie Oliver and third-placed David Hobbs/Mike Hailwood.

MCLAREN F1 GTR Le Mans 1996 twin pack **RRP** £85.99 1989 BMW E30 M3 DTM **RRP** £40.99



Website scalextric.com





DVDS

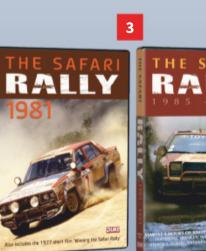
Duke Video's festive selection is packed with new offerings, with a DVD boxset showing the 2010-2019 Formula 1 seasons available for the first time. See Sebastian Vettel's meteoric rise to four-time world champion with Red Bull eclipsed by Lewis Hamilton adding a further five titles to his 2008 success. His latest title this season is also available separately, and as part of a bundle with boxsets of previous decades.

Rally and junior single-seater fans are also catered for, with retro films showing the heyday of the Safari Rally – returning to the WRC calendar next year - and Mika Hakkinen's infamous clash with Michael Schumacher at Macau in 1990 new to DVD.

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Website dukevideo.com/ASXMAS19





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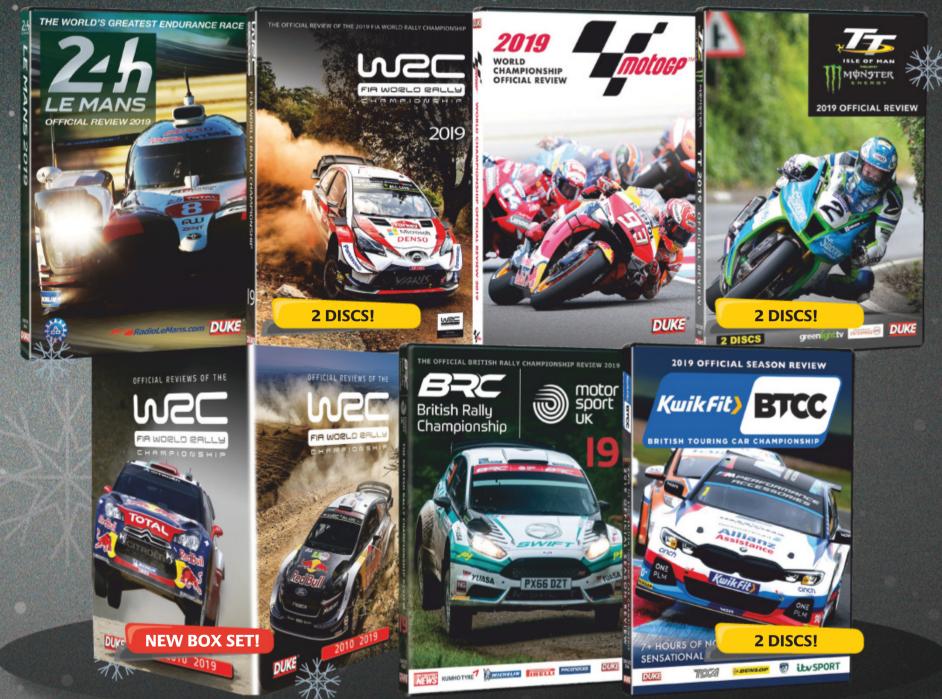
The F1 logos, F1 FORMULA 1 logos, F1 FIA FORMULA 1 WORLD CHAMPIONSHIP logo, FORMULA 1, FORMULA ONE, F1, FIA FORMULA ONE WORLD CHAMPIONSHIP, GRAND PRIX, F1 GRAND PRIX, FORMULA 1 GRAND PRIX and related marks are trademarks of Formula One Licensing BV, a Formula 1 company. All rights reserved.

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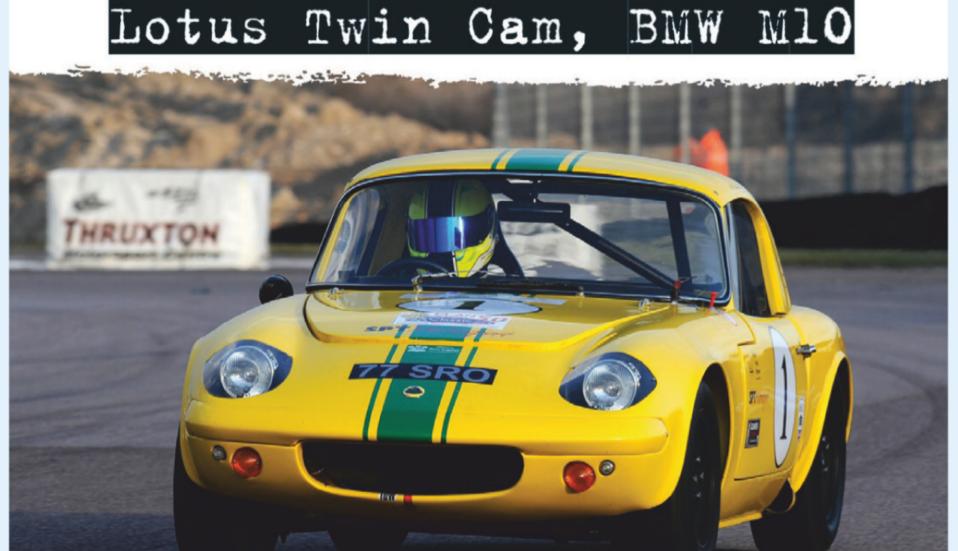
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HISTORIC ORGANISERS PLAN FEWER 2020 EVENTS

HISTORICS

Historic racing organisers have unveiled reduced programmes for 2020. These include the Aston Martin Owners Club, which describes its racing as "on life support" for next season.

AMOC has had a tricky season in terms of entry numbers (see page 72) and that has combined with the club having to take its race meeting organisation back in-house after it was previously outsourced.

Long-time club member and racer Peter Snowdon is leading a bid to keep AMOC in racing. "We're looking to offer a streamlined skeleton calendar for 2020 with perhaps one or two main races at Silverstone or Snetterton," he said. "We would then like members to have the opportunity to race at least four or five times a year with races at other events. We can then try to go forward in 2021. Right now, we're putting the club's racing on life support to try to maintain a near-80-year tradition."

The Vintage Sports-Car Club has revealed that it will run four meetings instead of its regular five in 2020, in an attempt to avoid a congested historics calendar that includes the biennial Le Mans Classic and Monaco GP Historique events.

"Part of our strategy is in the years of big European historic races we will run four meetings and other years we will run five," said competition secretary Gemma Price. "Let's reduce what we do and we will get a higher level of entries at the race meetings we do run." "So, together with the FIA, we have decided to intensify the competition and make it more accessible by reducing the Historic Formula 1 and Historic Sports Car Championships from seven to three rounds and having a summer-only schedule."

Masters has refocused its main calendar with more northern European races, and of the southern European venues only the season opener at the Algarve Circuit in Portugal will feature most of the organisation's categories. The Nurburgring Oldtimer event has been replaced by the Zolder Historic Festival (22-23 August). Masters' Donington Park event in late June will feature non-championship Formula 1 and Sports Car races.

HSCC LAUNCHES NEW 1980s SERIES

Single-seater racing cars of the 1980s will have a fresh chance to race next season in a new Historic Sports Car Club race category dubbed the Geoff Lees Trophy.

The series will be capped at two litres and will be open to Formula 2, Formula Atlantic, Formula 3, Formula Ford 2000, Formula Vauxhall Lotus, Formula Renault and Formula Super Vee cars raced during the 1980s.

The club's successful Historic Formula 2 class has a cut-off at the end of 1978, so the Geoff Lees Trophy will appeal to owners of two-litre F2 cars from 1979 to the end of the category in 1984.

Pilot races are planned for the second half of 2020 before a fuller programme in 2021. Lees, the 1981 European F2 champion, has given enthusiastic backing for the series. Andy Dee-Crowne of the HSCC said: "The HSCC is now the go-to club for period single-seater racing, and so this new series is a logical development to accommodate a group of cars that don't currently have many chances to race."

Another organiser to cut back is Masters Historic Racing. The FIA Masters Historic Formula 1 and Historic Sports Car Championships will be contested over just three events in 2020, covering summer races at Silverstone, Zandvoort and Spa in the space of barely two months.

Masters spokesman Ron Maydon said: "For some time we have been acutely aware of the hectic lifestyles, business schedules and family commitments of our drivers that make a long season of racing challenging.

CSCC TWEAKS MODSPORTS, ADDS SLICK SERIES

The Classic Sports Car Club has moved to broaden the appeal of its Special Saloons and Modsports series by introducing a parallel set of classes for Pre-1994 cars





BrandsHatch

powered by modern engines from next season.

Seeking greater reliability, sustainability and stabilised running costs to boost grids, the first major regulation revision in nine years is targeting newcomers with cars that match the ethos of the existing machines without alienating competitors.

"New separate classes and an overall winner for Pre-'94 cars running later technology will keep the look of the grid correct," said club director David Smitheram. "The series already has several period cars racing with Chevy LS and Honda VTEC engines, where owners have removed expensive originals for safe-keeping.

"We have previously turned away otherwise correct cars — such as Minis and Imps running bike engines and Escort Mk1s and 2s with Millington, Ford Duratec and Honda S2000 engines — but these will now be welcomed."

Three modern-engine classes will be split by capacity and a five-weekend calendar is to be confirmed, centred on a special event at Thruxton on 25-26 July.

The club will also launch a new series in 2020, which will cater for cars running slick or racing wet tyres.

The new Slick Series will feature the club's regular 40-minute race format and is open to all saloon, hatchback, sports and GT cars with doors – excluding Radical-like sportscars and Caterham Seven designs – and follows enquiries over the past couple of years from competitors. The club's other series for more modern cars, including Future Classics and Tin Tops, only allow treaded tyres. A statement from the CSCC read: "We anticipate a wide range of drivers participating, including existing CSCC drivers looking for additional races and those drivers with cars more suited to racing on slicks such as Ginetta G50/55s, Porsche Cup cars and ex-British Touring Car Championship cars." PAUL LAWRENCE, STEPHEN LICKORISH, **MARCUS PYE & MATT KEW**





BRITISH GT

Academy Motorsport will switch allegiance from Aston Martin to Ford next year and run two cars in the British GT Championship and GT4 European Series with support from car builder Multimatic.

The deal will mean Matt Nicoll-Jones's team becomes a Multimatic-approved agent for the Ford Mustang GT4 in Europe and confirms that Multimatic, which ran Seb Priaulx and Scott Maxwell to second in the 2019 British GT4 drivers' championship, will focus on supporting customer teams instead of staying with a team entered under its own name.

Nicoll-Jones was the inaugural GT4 champion in 2008 and his squad won the GT4 teams' championship in 2015, but endured a tough 2019 season with the new Aston Martin Vantage GT4. While fellow Aston operation TF Sport secured the title, Academy's two cars only registered one points finish, an eighth at Silverstone, although Will Moore and Alex Toth-Jones were in position to win at Brands Hatch until Moore crashed at Druids.

Nicoll-Jones said the opportunity to partner with Larry Holt's Multimatic operation was one he could not turn down and that the proven pace of the Mustang which was first developed in 2017 and introduced to the UK this year — could make the team a winning proposition.

"In nearly 20 years of doing this, I've not come across the same like-minded individuals as I have with them, it's very straightforward," he said. "With the right drivers I see no reason why we can't be trying to win it next year — we're not going to make up the numbers."

Nicoll-Jones has tested the Mustang and has not ruled out racing it himself next year if drivers with budget cannot be found. "It just ticks every box — it's competitive, it's strong and reliable, the all-round ideal weapon, and doesn't cost a fortune to fix," he added. "It's incredibly easy to drive, very confidence-inspiring, and you can grab it by the scruff of the neck as opposed to having to drive with a unique style."

Academy is also exploring opportunities to race the Mustang in the US next season. JAMES NEWBOLD

Fox Motorsport to enter Porsche Carrera Cup GB

CARRERA CUP GB

GT squad Fox Motorsport will expand into the Porsche Carrera Cup GB next season.

The team has achieved success in a number of different categories in the past, including International GT Open, British GT and Britcar but this will be the first time it has competed in the Porsche series.

Fox is plotting a two-car entry, with the first seat filled by regular driver James Townsend, who finished third in the Ginetta GT5 Challenge Am class standings this season.

"The Porsche Carrera Cup GB is a series we've had an eye on for a while, so it's fantastic that we now have the opportunity to move into the series," said team boss Paul McNeilly.

"Few GT cars have both the brand presence and the racing pedigree of the Porsche 911, so this is a second car and are currently working to make that happen, while also finalising our other race programmes for 2020."

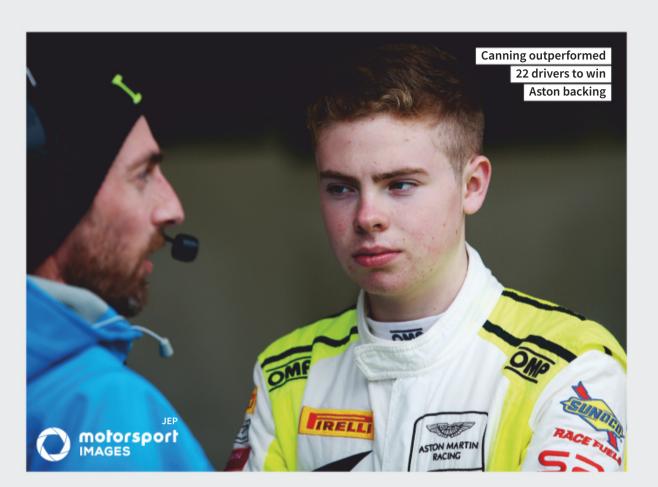
Townsend added: "I feel extremely at home here [at Fox] and the whole team have done an amazing job both in preparing my car, and in developing my abilities behind the wheel. The Ginetta G40 was the perfect car for me to hone my skills in, but now I'm



a perfect move for James. "We'd also like to run ready for more power and a higher level of competition."



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GT4 champion Canning wins Aston Martin Driver Academy

BRITISH GT

British GT4 champion Tom Canning has set his sights on a Le Mans 24 Hours class victory within five years after being announced as the winner of the Aston Martin Racing Driver Academy.

The 17-year-old was confirmed as the winner last Thursday, besting 22 other drivers, including co-champion Ash Hand, to be selected as the revived programme's second graduate, after Ross Gunn in 2015.

Canning will receive career assistance and guidance from AMR next year,

including a financial contribution to his race programme. Canning said that his target remains to step up to British GT₃ next year, with a campaign in European GT4 also a possibility.

"We've got some support from Aston Martin now, so hopefully that should open up some more opportunities with their customer teams next year," he said. "The biggest thing for me is to have the connection with Aston and opening up the potential opportunity to race in something like WEC in a few years' time." JAMES NEWBOLD

MG Live set to return for 2020

IN THE HEADLINES

MASON'S MRF PODIUMS

Two-time BRDC British Formula 3 race winner Josh Mason is second in the MRF Challenge standings after the first races of the Indianbased series' season at Dubai Autodrome last weekend. Mason, who has already been confirmed on the F3 grid for next year, took four podiums across the five races. The wins were shared by Belgian MRF regular Michelangelo Amendola, Australian Dylan Young and USF2000 racer Yuven Sundaramoorthy.

LATEST MA7DA DRIVERS

A pair of 750 Motor Club regulars are among the latest drivers to sign up for the Ma7da series for 2020. Successful racer Danny Andrew – who has been a regular winner in both Locost and RGB Sports 1000 – will compete in the series next year and will be joined by Sian Stafford-Atkinson, who will return after a longer-than-expected break from racing.

IRISH SHOW POSTPONED

Due to logistical reasons, The Motorsport Show scheduled to take place at the RDS Simmonscourt in Dublin last weekend had to be postponed. Rescheduled dates for the event will be announced shortly. Tickets bought for the original dates will be valid for the new dates and refunds are also now available at the point of purchase.

CATERHAM ENDURO BACK

The British Racing and Sports Car Club Caterham season will again begin with a four-hour team enduro race next season. The event was introduced at Silverstone in 2019 (below) and featured teams of four Caterhams with drivers graded to ensure parity between competing squads. "It's a good opportunity to shake down cars as a lot of people modify their car for a new category over the winter," said BRSCC chairman Peter Daly, who added that the Caterham Academy is already fully subscribed for 2020.

MGCC

ran five meetings in 2019 instead of its usual six. The provisional date for the 2020 running is 13-14 June. "We understand that there will be some concerns from our loyal members following the difficulties with track surfacing at Silverstone last summer [in 2018] and the subsequent resurfacing this summer that led to the cancellation of our 2019 event," said MGCC general manager Adam Sloman.

"We'd like to assure everyone that we found

The popular MG Live event is set to return to Silverstone next year after this season's edition was cancelled. The MG Car Club's flagship meeting had to be axed this year because it fell during the period when urgent resurfacing work took place at the Northamptonshire circuit. The club was unable to find a suitable alternative date or venue and therefore ourselves in an unprecedented situation then — that is now resolved. "The management at

Silverstone have been incredibly helpful and have bent over backwards to ensure we have the certainty we need to deliver a truly memorable MG Live event next year." Next year will mark the club's 90th anniversary so special celebrations are planned for the MG Live event.



The kings of clubs

There are 177 English series run by a plethora of different clubs — and here Autosport looks at which performed well in 2019 and which did not

STEPHEN LICKORISH

here were 177 different racing series organised by English-based clubs this year. On the face of it, that sounds like a rather large number. And, as any reader of Autosport will know, we've long argued that there is too much racing in this country – not just in recent years, we've been making the point for decades.

The club racing season that has just concluded has highlighted a number of problems with the UK motorsport scene. There were events cancelled or affected by a shortage of marshals, there were dates cancelled due to a lack of entries, and there were some clubs that were booking excessive amounts of track time that they simply weren't able

to fill. All of which suggests the club calendar is a little too congested. Despite these negatives, there are some series that are doing incredibly well – 12 of the 177 have attracted an impressive average of over 35 cars. And Motorsport UK CEO Hugh Chambers believes circuit racing in the

"I think there's a number of reasons for that - there's a very strong

UK is proving "extremely robust and strong".

"Instead of clubs having three sparse grids, they could have one big grid – but is that our job as a governing body?"

community and club network,"he says, picking out the "vibrant" 750 Motor Club for particular praise. "The circuit owners, principally with MSV, what Jonathan Palmer has done in terms of investment and a vision of what those circuits can be — the quality of experience is fantastic. Those clubs and classes that are doing a great job have got packed grids."

But that's not the case across the board, and Chambers is pragmatic about whether or not there is indeed too much club motorsport.

"The crux of this is whether you are a free market economist and whether you believe the market should decide or if you have a commandand-control view of it," he says. "There are arguments for both sides of this and something in the middle is probably the optimum.

"The way the calendar is put together, it's very difficult to have a command-and-control supply-chain way of approaching it. Each club has their own specific requirements and for us to intervene in that is extremely complex — it needs great caution.

"At the same time there's no question there's a number who think there are too many events. Instead of clubs having three sparse grids, they could have one big grid — but is that our job as a governing body [to tell clubs what to do]? Perhaps it's our job to encourage that and we can help to facilitate these things."

It is an interesting question, and whether or not the governing body should intervene is one up for debate. But regardless of the answer to that issue, Autosport has decided to break down each club's offering over the next seven pages and look specifically at which series have done well and which haven't — and why. This includes all English clubs, while the very different situations in Scotland, Northern Ireland and the Republic of Ireland will be explored at a later point.





British Automobile Racing Club

The British Automobile Racing Club experienced the very highs and lows in terms of entry numbers this season. Back in April, the club broke records when an incredible 99 Citroen C1s competed in the C1 24-hour race held at Silverstone, after receiving special dispensation from Motorsport UK for the massive entry.

But then the following month came a race at the opposite end of the scale. Just two cars participated in a Tin Tops race at Brands Hatch. The series had been run by the now-closed BARC South Eastern Centre but, with many competitors joining the Classic and Modern Motorsport Club instead, there was a lack of interest in the BARC series continuing. It did not reappear after that Brands event.

Even when not counting that mammoth 99-car one-off grid, the C1 Challenge still topped the BARC's charts in terms of average entries for a category with a single grid. But it wasn't all plain sailing this year as the second 24-hour event at Anglesey in September embarrassingly had to be cancelled after a lack of marshals volunteered to attend the meeting.

BARC general manager Ian Watson admits he can't be certain there won't be similar issues again next year.

"I'm never confident when you're relying on volunteers turning up to man meetings," he says. "You can never be sure [on numbers] — it was Anglesey this year, but all venues have their own individual problems and, if you've got a lot of racing in the same areas at the same time, marshals will vote with their feet."

Despite that setback, Watson is pleased with how the season went, even though the overall average entry is the lowest of all the major clubs.

"In general, it was a fairly good season we obviously had one or two disappointing grids, as most people have had in their own way,"he says. "It's always disappointing when people can't get the grids they want, but the meetings overall were good."

One of those disappointments was the Series Elite category for Jaguar XE Project 8 saloons. A lack of cars and technical troubles led to the series holding only one event with just four drivers before it joins up with MotorSport Vision Racing's GT Cup for 2020.

Of the other smaller grids, Watson says that discussions are taking place over the future of MaX5, which only broke into double figures at two of its seven meetings this year. The Renault UK Clio Cup also struggled in what was set to be its final season, only for Renault Sport Racing to step forward to support the category in a new format. The Michelin Clio Cup series for older Clios — although the current car was accepted for the first time this year — also suffered from minuscule grids and its future is yet to be decided too.

The final grid that was regularly below 10 was Division 1 of the British Truck Racing Championship. While the logical conclusion would be for it to join up with the Division 2 trucks (which number around a dozen), Watson says this is not possible.

"The truck events are limited to 20 on track so we have to keep them separate," he explains. "There were five or six Division 1 trucks at some events, but there were a lot more at others [meaning they wouldn't be able to share grids]."

GRID SIZES

SERIES	AVERAGE ENTRIES
Caterham Graduates**	43
Citroen C1 Challenge***	35
CNC Heads Sports/Saloons	32
British Touring Car Championship	30
Ginetta GT5 Challenge	29
Ginetta Junior	23
Britcar Endurance	22
Citroen 2CV	22
Legends	22
Classic Formula Ford 1600	20
Ginetta G40 Cup	20
Hyundai Coupe Cup	20
Junior Saloon Cars	20
MG Owners' Club	20
Classic Touring Cars: Pre-'83*	19
Clubmans Sports Prototype	18
Ginetta GT4 Supercup	18
Porsche Carrera Cup GB	18
Super Silhouettes	18
Classic Touring Cars: BOSS & Classic Thunder*	17
Super & Mighty Minis	17
Classic Touring Cars: Pre-'66*	16
Kumho BMW	16
BARC Saloons*	15
Honda VTEC/Classic VW Cup*	15
Pickup Truck Racing	15
Classic Touring Cars: Pre-'93, Pre-'03 & Pre-'05*	14
Ginetta Racing Drivers Club	14
British Truck Racing Division 2	12
Renault UK Clio Cup	11
British Truck Racing Division 1	9
MaX5	9
Michelin Clio Cup Series	9
Club average	19



Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually ** split over two or more different grids *** not including special 99-car 24H race



British Racing and Sports Car Club

Just like the British Automobile Racing Club, the British Racing and Sports Car Club experienced extreme highs and lows in terms of numbers of entries this season. Out of all the categories included in this feature, the BRSCC includes the one with the largest average entry (MX-5 Championship: 57) and the smallest (Fiesta Junior: 5).

Club chairman Peter Daly believes the affordability and availability of the Mk1 MX-5s and BMW Compacts featuring in the Compact Cup are among the factors of the popularity of those two series.

"We've had great numbers in MX-5s and both of those series have got very good coordination — we've been able to create a paddock environment that's sociable and I think that's part of the success of them," he says. "They're relatively easy cars to buy and low cost, and they're both very competitive at the front."

That's in contrast to Fiesta Junior, which has failed to attract more than six cars at any point this season. But Daly is confident of a turnaround for 2020 as a couple of taster days held at meetings with 13 at the final round, Daly is more optimistic for next season.

Also struggling was the Porsche series, but major changes are planned in a bid to widen the number of eligible cars and make the series more attractive. The OSS series for prototype machines was another to have a tough season, averaging just 10 cars, after attracting 32 two years ago.

"OSS shows how championships can come and go so quickly — but that's one of the challenges all clubs face," says Daly. "We're committing huge amounts of money to organise race meetings and we have to rely on the commitment of our members to go racing."

Daly admits there will be a number of economic challenges for clubs next season — including the event permit fee increases and rising costs of hiring circuits — but an encouraging development for the BRSCC was the success of the Clubsport Trophy. Two 45-minute mini-enduro races were held this season, attracting an impressive 34 and 41 cars, with a full calendar of races set to take place next year.

"The Clubsport Trophy has been a great

GRID SIZES AVERAGE SERIES **ENTRIES** MX-5 Championship** 57 **Compact Cup** 40 British GT 38 Caterham 310R 34 Caterham Roadsport 33 30 Caterham 270R 24 Fun Cup 23 **Civic Cup** Caterham Academy Green 22 22 Caterham 420R Caterham Academy White 21 19 Ferrari Challenge UK Production GTI 19 ST-XR Challenge 18 National Formula Ford 1600 18 Northern Formula Ford 1600 17 Alfa Romeo* 16 Fiesta 15 15 MX-5 Supercup* MX-5 Super Series* 15 British Formula 4 13

this year showed good interest.

"We've put a lot of investment of time and money into Fiesta Junior, which we're fully behind,"he adds."Preregistrations are already up for 2020."

While the Caterham categories have continued to be popular — and the Academy series is already fully subscribed for next year — Fiesta Junior isn't alone in attracting a single-figure average. The merged Touring Car Trophy and TCR UK contest managed an average of eight but, breakthrough," says Daly. "I wouldn't say we were surprised [by grid sizes] because I knew the effort put into it, but we were very pleased. It's identified areas we have to improve on – communication with our customers and finding out what the customers want. It gives competitors the opportunity to use their car in a more flexible way, sharing it with other people or doing an extra race at a weekend." The BRSCC will be looking to expand on that series' success in 2020.

055	10
Porsche*	9
Touring Car Trophy & TCR UK	8
Fiesta Junior	5
Club average	22

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually ** split over two or more different grids



The 750 Motor Club is definitely one of the standout performers. It has a high proportion of its classes averaging over 25 cars and, if you exclude a tricky first season for its Type R Trophy, its average number of entries per series would rise to 27.

And it's the club's focus on affordability that leads to Club Enduro, Locost and the Toyota MR2 Championship topping its charts.

"Overall, in terms of our performance relative to expectations, we exceeded what we were expecting," says competitions manager Giles Groombridge. "Every championship is different, but with MR2 and Locost it's affordability they're two of the cheapest series in the UK to find a suitable car and the availability [is high]. Both have had very stable regulations for many years and we do our best to keep entry fees and membership fees as low as we can.

"Club Enduro has more exotic machinery on the grid but in the lower classes it's still a very "The calendar was probably a bit too ambitious as it had a European round at Zandvoort and people strayed away from it, and it's been hard to get the numbers back.

"We stuck with it and just at the end of 2018 we had a good influx of new drivers. We decided to give it another shot and it paid off and returned to strong competitor numbers."

But perhaps the clearest sign of the 750MC's popularity is that two long-standing categories from the British Racing and Sports Car Club have opted to join its ranks. The single-seater F1000 series did so for this year and its numbers featured a notable increase.

"It was great F1000 is off its yellow card [warning for low grids] for the first time in many years," adds Groombridge." It was averaging 12-13, now it's 17-18 which, as a percentage increase, is quite high. Moving to our paddock has been really beneficial for them with lower entry fees and lots of synergies with other championships in the paddock, with Bikesports and RGB both being bike-engined categories." Aside from the Type R Trophy's fledglingyear struggles, the other disappointing grid is RGB Sports 1000, but it still averaged 16 cars. Groombridge feels that reflects the changing nature of motorsport in this country. "RGB is an unusual one because it's evolved away from its roots, which was very much in the kit car industry where there were lots of cars you could drop a bike engine in and go racing,"he explains."The gradual loss of the front-engined cars and the speed of development of the rearengined cars did limit the grid sizes."

GRID SIZES	
SERIES	AVERAGE ENTRIES
Club Enduro	41
Roadsports	36
Armed Forces Race Challenge	34
Locost	34
Toyota MR2	34
BMW Car Club Racing	32
Hot Hatch	30
Formula Vee	29
Sport Specials	29
MX-5 Cup*	28
Bernie's SR & V8s	25
Classic Stock Hatch	23
Bikesports	22

affordable access point into proper endurance racing. Club Enduro allows people to race any production car at a higher performance point than series like the C1 Challenge and EnduroKa – the guys who won Class C have a pretty standard BMW 330."

Other series doing well include the BMW Car Club Racing category — which sensibly amalgamated with two of the club's other BMW series for this year — and the MX-5 Cup.

"We had a mega season in 2015 and 2016 with the MX-5s with grids pushing capacity on a regular basis and it really dipped in 2017," says Groombridge of the series for Mk1 models.

Clio 182	21
Historic 750 Formula	20
F1000	18
750 Formula	17
RGB Sports 1000	16
Type R Trophy*	8
Club average	26

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually



Classic Sports Car Club

There is no disputing which club has attracted the largest entries this season. That honour goes to the Classic Sports Car Club, and by some margin — its average number of entries is 31, while the next highest is the 750 Motor Club on 26.

It's worth bearing in mind the smaller Turbo Tin Tops grid was bolstered by Smart 4Two Cup and Puma Cup entries, and that the lesspopulous Special Saloons and Modsports only featured at three events and therefore isn't included in the averages. But, nevertheless, it's an incredibly impressive achievement.

Key to that 31-car number are consistently high entries across its categories — only two of its regular series failed to attract 25 or more cars on average.

"We've had some cracking grids – Donington Park was a CSCC record, we had 410 entries, so we're pretty chuffed with that," says club director David Smitheram. "But it has been varied – one or two rounds were lower than we anticipated."

One of those many categories averaging over 25 cars is New Millennium — and Smitheram picks that out as being a particularly notable one. "New Millennium really came into its own in its fifth year now and suddenly people have woken up to it," he says. "Three times we had sold-out grids with reserves."

When it comes to what makes the club's classes so popular, Smitheram says there are many different reasons, including the increasingly copied format of one or two-driver 40-minute pitstop races. "The difference is the staff and volunteers," he adds. "The concept has been copied over the years by three different clubs now, but what they can't replicate is the care those volunteers bring."

GRID SIZES AVERAGE SERIES **ENTRIES** Swinging Sixties** 53 **Magnificent Sevens** 37 **Tin Tops** 37 **Open Series** 32 New Millennium 30 Future Classics* 29 Classic K 25 Turbo Tin Tops* 20 Modern Classics* 19 Club average 31

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually

** split over two or more different grids

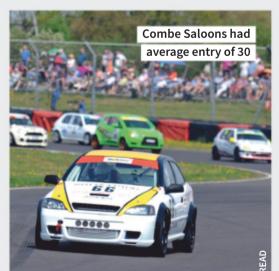
Castle Combe Racing Club

It is always encouraging when a club gets recognised for the work it has done to restore a series from the doldrums to having healthy grids. The Castle Combe Racing Club is one club that can testify to this after its Formula Ford 1600 championship received a boost in 2019.

Entry levels had been disappointing last season and were barely into double figures at some rounds – at several it with a special event early in the season.

The club's other series also performed well, especially when you consider it's focused around a single circuit with a limited pool of drivers. Saloons led the way with an average of 30 cars, but Hot Hatch wasn't far behind on 25.

"All of our championships have been pretty consistent and worked well," adds Lewkowicz. "Saloons has always been



dropped to 11 – but there were no such problems this time around as grids increased and averaged 18 cars.

"We got commended from Motorsport UK to say well done and they were pleased with the numbers going up and hopefully that will carry on," says club coordinator Jo Lewkowicz. "There's lots of different reasons [for the rise], like people wanting to do different things."

Another factor was the category celebrating its 50th anniversary this year,

pretty strong but you can't be complacent." While it was Formula Ford that was celebrating a special birthday this year, in 2020 there's a host of other commemorations taking place. Not only will it be the Wiltshire circuit's 70th, it will also be the 25th anniversary for the Saloons and 45th for GTs. Lewkowicz says celebrations will be planned to mark all of these landmarks, while a new class for cars with non-original engines is planned to be introduced into Hot Hatch.

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GRID SIZES	
SERIES	AVERAGE ENTRIES
Combe Saloons	30
Combe Hot Hatch	25
Combe Formula Ford 1600	18
Combe GT	16
Club average	22



There is a common theme among three of MotorSport Vision Racing's most popular series. If you discount Monoposto, which is spread across two different grids, the Trackday Trophy, Trackday Championship and EnduroKa are all extremely low-budget categories that are run by the club's MSVT trackdays division.

While the two Trackday categories have enjoyed successful seasons before, the new-for-2019 EnduroKa jumped on the bandwagon of the massively popular C1 Challenge with a similar format of having a cheap car to buy and featuring endurance races. And it flourished, attracting a number of top names including Le Mans winner Nick Tandy and was even the category ex-McLaren Formula 1 boss Eric Boullier chose to make his racing debut in.

There were successes elsewhere

including the JCW and Cooper Pro/Am classes of the Mini Challenge – although having single-figure standalone grids at almost all events for the older Cooper S class could have been avoided. Other series to struggle include the revived Z Cars series for BMW Z₃s and Z₄s, and the F₃ Cup again found entries hard to come by.

"MSVR has had a very strong season which very recently ended [16-17 November] with a successful final round of the hugely popular EnduroKa series at Brands Hatch," says competition secretary Joe East."We are currently reviewing and analysing 2019 in some detail before making any final decisions on changes and evolutions for next year."

MSVR did not wish to discuss any of its series in any more detail at this point, just after the conclusion of the season.

GRID SIZES	
SERIES	AVERAGE ENTRIES
Monoposto**	45
Trackday Trophy	31
Trackday Championship	30
EnduroKa	27
Mini Challenge JCW	27
Radical Challenge	21
GT Cup	20
Mini Challenge Cooper Pro/Am*	20
Racing Saloons	20
Champion of Brands Formula Ford 1600	19
Heritage Formula Ford 1600	17
MSV Supercup	17
BRDC British Formula 3	16
Radical SR1 Cup	16
Volkswagen Racing Cup	16
Production BMW	15
Elise Trophy	14
Focus Cup	12
Z Cars	11
F3 Cup	10
Mini Challenge Cooper S*	8
Club average	20

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually ** split over two or more different grids

MG Car Club

The loss of your flagship meeting through no fault of your own is always going to impact a club. And sadly any discussion of the MG Car Club's 2019 season cannot ignore the disappointment that the popular MG Live event was cancelled due to Silverstone's resurfacing work.

"We were just incredibly unlucky to be hit

Elsewhere, the traditionally well-subscribed MG Trophy averaged only 21 cars as several drivers moved on or chose to race their ZR in other MGCC categories. But it's the Metro Cup that had the most difficult season.

"If you were to do a ratio of how many registered to how many entered, it would be



by the work that was done," says the club's competitions secretary John Hutchison. Away from MG Live, the club enjoyed a pretty strong season with its BCV8 Championship leading the way in terms of entries, averaging 25. Hutchison picks MG Cup as another success. "In MG Cup we've gained quite a few Rover Tomcats – we invited them as a bit of a test to start with to see how they compared [to existing cars],"he says."That particular vehicle can be quite tuned but we've got them to a level where they're on a par with the MG ZRs and ZSs. We've managed to attract seven, when you consider we had none a couple of years ago."

about 95% on average," says Hutchison." The numbers that we bring out are the number we've got. It's a fantastic, affordable grassroots way into tin-top racing and they're fun to drive. But the issue, especially with the Metro Turbos, is there's not many of them, and they are now becoming quite collectable in some instances, so there is less desire to convert them into race cars." One of the initiatives the club is pleased with is its policy of offering half-price entry fees for drivers aged under 25. That scheme is set to continue next year and, with MG Live due to be back on the calendar at Silverstone, the club is optimistic for 2020.

GRID SIZES	
SERIES	AVERAGE ENTRIES
BCV8	25
MG Cup	23
Midget & Sprite Challenge	22
MG Trophy	21
Cockshoot Cup	19
Metro Cup	14
Club average	20

Note All figures include series that had at least four race events.



Historic Sports Car Club

Your first season in charge of one of the major racing clubs inevitably means there's plenty to learn and think about. That's certainly what Andy Dee-Crowne found in his first year as CEO of the Historic Sports Car Club.

One thing Dee-Crowne encountered was variable grid sizes. While all of the HSCC's regular portfolio attracted average entries of 16 or more, several categories — including 70s Road Sports, Historic Touring Cars, Historic Formula 3 and Guards Trophy — had races with 10 or fewer cars.

"I think there's a budget issue there," says Dee-Crowne. "There's no doubt that some venues [are less popular] and there's also whether it's a two-day meeting. One of our least attended meetings was Brands Hatch Indy, which didn't inspire people as much as we thought it would, but these things do go round in cycles."

With that in mind, the club will offer new categories for 1980s cars next year. "We have to move forward to meet the newer people that have the disposable income that want to drive the iconic cars of their era,"he adds."The HSCC was founded in 1966 and in the inaugural race there were D-type Jaguars that were 10 years old at the time."

As for 2019, Dee-Crowne picks out Historic Formula 2 — recently recognised at the RAC's Historic Awards — and Thundersports (the new name for the Pre-'80 Endurance series) as two highlights.

GRID SIZES	
SERIES	AVERAGE ENTRIES
Formula Junior**	30
Historic Formula Ford 2000*	26
Historic Formula Ford 1600	25
Historic Road Sports*	24
70s Road Sports*	23
Classic Formula 3 & Classic Formula Ford 2000	23
Guards Trophy	23
Historic Touring Cars	19
Classic Clubmans	16
Historic Formula 3*	16
Saloon Car Cup	16
XL Aurora Trophy	16
Club average	21

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually ** split over two or more different grids





There is no disguising the fact that it has been a difficult season both on and off track for the Aston Martin Owners Club this year. While entry numbers at some of its race meetings have plummeted, it has been left in the lurch in terms of the operation of its club series, and regular racer Peter Snowdon has recently been appointed to the role of club director responsible for racing. While its historic grids have generally performed well this year, with the combined Jack Fairman and Innes Ireland Cup races averaging 26 cars, some of its other categories have really struggled. Despite Intermarque combining with the Aston Martin GT4 Challenge, it only averaged 15 cars, and the more open GT Challenge series managed an average of just nine. "We had a great opening round at Donington Park, and Oulton Park just didn't attract people for some reason," says Snowdon, who adds it was difficult to rebuild any sort of momentum after that. To illustrate the point, there were only 36 entries across all the AMOC categories at the Oulton meeting – the third event of the season – compared to 59 for the Donington opener, with one fewer series as the Pre-War Challenge wasn't in attendance.

All of this means 2020 will very much be a "rebuilding year" for the club.

GRID SIZES	
SERIES	AVERAGE ENTRIES
Jack Fairman Cup & Innes Ireland Cup	26
Intermarque & Aston Martin GT4 Challenge*	15
GT Challenge*	9
Pre-War Team Challenge	8
Club average	14

* shared a grid with another series at one or more rounds, but figures are based on each series individually

NATIONAL CLUB ANALYSIS CLUB AUTOSPORT



Vintage Sports-Car Club

The Vintage Sports-Car Club is very different to all of the other clubs included as part of this feature. Not only does it boast far older machinery than any of the other race organisers, but it also doesn't run any series or championships and instead puts on a succession of standalone races for different types of car.

Although this means direct comparisons are harder to make, the club nevertheless had a number of key moments in its history this season, including some of its largest grids for many years at Oulton Park.

"Overall it's been our strongest race year for quite some time," says competition secretary Gemma Price. "A real highlight was getting the first Motorsport UK-sanctioned Le Mans start at Silverstone — that was a big deal for us. A huge amount of work went on behind the scenes to get permission to do it and the planning was quite an undertaking. We were really pleased with that.

"Cadwell Park was also a really brilliant meeting for us. We had an under 30s race there – a lot of our members are under the age of 30 but they don't have their own cars because of the costs. The owners put the cars up and the under 30s race them and the entry fee was only \pounds 50 for a 15-minute race. That was really nice."

Despite being 85 years old, the club also made its first ever visit to Brands Hatch in 2019 — but this wasn't received quite as well as you might think. Price says it was a "hard sell" with competitors wary of racing the vintage cars at a new venue.

"They were concerned about familiarity with the circuit so we ended up running a sprint in the morning and a race in the afternoon," says Price, who adds that the unique format of the event worked well as drivers could familiarise themselves with the track in the morning before the racing began.

But the obvious low point was the cancellation of the club's Snetterton event in September due to a lack of entries.

"Our competitors just don't like Snetterton and we can't force people to attend a circuit they don't want to,"Price says."Pre-war cars are quite fragile, and with Snetterton being near the end of the season [it didn't help]."

The club has been in extensive consultation with its competitors for 2020 and will therefore run one meeting fewer (see news) to help avoid clashing with large biennial historic events such as Monaco GP Historique and Le Mans Classic.



As well as the major players, there are also several smaller clubs now organising meetings. The newest to enter the field is the Classic and Modern Motorsport Club, and this achieved some very impressive

organised its own race meeting for the first time in partnership with Lydden Hill and, although some of the grids proved a little thin, the event was well-received. At other historic meetings, the club attracted massive 30-40 car entries. There is also a clutch of individual series not aligned to any one club, and leading the way out of these is Equipe GTS. Running at both MG and Aston Martin club events, it has attracted strong entries for several years now and that was again the case in 2019. Other good performers were Croftbased Northern Saloons & Sports Cars, while the Mini Se7en and Mini Miglia categories benefited from British Touring Car and DTM support slots.

GRID SIZES	
SERIES	AVERAGE ENTRIES
Equipe GTS**	48
Northern Saloons & Sports Car**	33
HRDC Coys Trophy	28
Mini Se7en	26
Sports 2000**	26
Track Attack	26
HRDC Allstars	25
Morgan Challenge	24
Porsche Club*	23
Equipe Pre-'63	22
Mini Miglia	21
Pirelli Ferrari Formula Classic	19
Jaguar Saloons & GT*	17
CMMC Southern Super Saloons*	16
Welsh Sports & Saloon Car	16
CMMC Production Saloons*	15
Porsche Restoracing*	15

entries during the course of the season. It secured 28 cars for its Southern Saloons category at Silverstone and 26 for one of its several visits to Brands Hatch. But it wasn't all plain sailing as smaller entries at Lydden Hill reduced the averages for the CMMC series, and the Pre-'64 category struggled to get into double figures in a very crowded marketplace. The Historic Racing Drivers Club has been around for a little longer but also broke new territory this season as it

Note All figures only apply to UK rounds and include series that had at least four race events. * shared a grid with another series at one or more rounds, but figures are based on each series individually ** split over two or more different grids



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Time to press the reset button?

Dwindling grids are less a sign of a sport in decline than the pressing necessity for championship organisers to work together towards root-and-branch reorganisation

STEPHEN LICKORISH

S ixteen is the magic number if you're a club racing championship. Get more than 16 entries on average per round and you're safe from being handed a red or yellow card from Motorsport UK's championship control panel.
The analysis of all the English clubs over the previous pages reveals that 19 championships had fewer than 16 cars on average in 2019 – and a further 10 non-championship series did too.
Of these, inevitably some are more concerning than others.

The 19 championships are Intermarque, Metro Cup, Mini Challenge Cooper S, F3 Cup, Focus Cup, Elise Trophy, Production BMW, Fiesta Junior, BRSCC Porsche, OSS, British F4, MX-5 Supercup, Fiestas, Michelin Clio Cup, MaX5, Division 1 of British Trucks, Renault UK Clio Cup, Pickups and the Classic VW Cup. Of those, there are some very obvious candidates for the chop. For example, there are too many MX-5 championships in the UK and the British Automobile Racing Club's MaX5 category has consistently been the weakest in recent years. The British Racing and Sports Car Club is also combining its MX-5 Supercup and Super Series divisions for the Mk3 model next year to boost grids.

Another overpopulated area is championships for BMW cars. It's MotorSport Vision Racing's Production BMW that proved the least-supported, while the BRSCC's Compact

"Clubs are all too keen to poach popular ideas from rivals and risk splitting a limited pool"

Cup and the 750 Motor Club's BMW Car Club Racing series

The least-supported championship of them all was Fiesta Junior, a category that has never boasted what could be described as a large grid. The BRSCC is continuing to invest in the series to try to turn things around, but surely this has to be the final throw of the dice. Equally, it's encouraging to see the club realise that there are problems with its Porsche championship, and it's planning a major overhaul to widen the number of eligible cars in a bid to entice new competitors.

That sort of proactivity is to be commended, but sadly it doesn't happen often enough. Too many series are allowed to continue when really they don't add anything and are no longer needed.

"There's a lot of championships that have been struggling for a number of years and continued when maybe there needs to be a bit of a reset in the industry in terms of the number of competing championships," says the 750MC's Giles Groombridge.

And that relates to Motorsport UK CEO Hugh Chambers's point about whether or not the governing body should intervene.

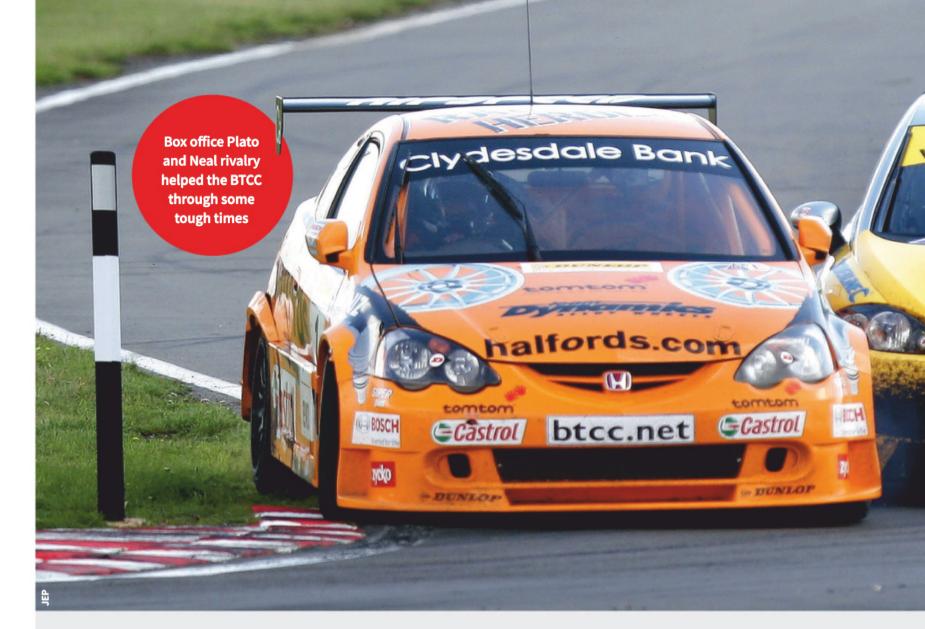
"We've been working through a massive agenda but it's definitely on our radar," says Chambers. "If enough people feel there's an issue [Motorsport UK will act] but what I don't want to do is go wading in there [straight away] – 90% of it is working brilliantly but I don't want to upset everything because 10% isn't."

The other issue with there being unnecessary championships is that this forces clubs into booking unnecessary track time. There were a number of occasions this season when BARC, for instance — other clubs were also guilty — had plenty of spare time at its meetings and ran extra practice sessions. Barely a week goes by where clubs don't complain about the rising cost of circuit hire, but if they axed their least popular championships or merged smaller series, they would need less track time and expenses would be lower.

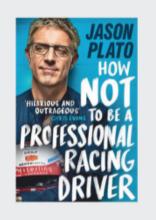
The other thing clubs need to do in this time of ever-increasing costs is to work together more. A prime example of this is the 750MC and Vintage Sports-Car Club cooperating on a pair of races for Austin 7s. As VSCC competition secretary Gemma Price says, it's a case of "working with other clubs to help everybody". Classic Sports Car Club's David Smitheram has noted that clubs are all too keen to poach popular ideas from rivals and risk splitting a limited pool rather than concentrate on ideas that are unique. But the previous eight pages have also demonstrated that some areas of club racing are absolutely thriving. Take the budget historic offerings from the CSCC, the affordable categories of the 750MC and the hugely popular MX-5s and Compact Cup from the BRSCC. It's just a shame those successes still represent a small percentage of the overall club racing scene. **#**

are flourishing. The struggling Cooper S class also certainly no longer justifies standalone grids for its eight cars and the Classic VW Cup will be amalgamated with BARC Saloons next year.

Also, the Clio Cup found attracting drivers difficult in what was set to be its final season before Renault Sport Racing France gave it a reprieve, while it was the inaugural year of the Focus Cup so its lower numbers can be forgiven. And Intermarque has been caught up in a very difficult campaign for the Aston Martin Owners Club. Another interesting case is OSS. Prototype-based series have really struggled in the UK in recent seasons — the LMP3 Cup and Britcar Prototype series proved shortlived, while RGB Sports 1000 and Bikesports are among 750MC's smallest categories, and the new Sports Prototype Cup had a tough first season too.



UNDILUTED DRINKS AND OPINIO



BOOK REVIEW JASON PLATO - HOW NOT TO BE A PROFESSIONAL RACING DRIVER RRP £20.00

There's a reason why only one of the current British Touring Car Championship field has released an autobiography. Through his TV work on

Fifth Gear most notably and, as he readily admits, deliberately playing the pantomime villain to gain headlines, Jason Plato has by some way the highest profile of his tin-top contemporaries.

That savviness with the media has not only created the appetite for *How Not to Be a Professional Racing Driver* in the first place, but also means Plato is adept at telling a story.

When it comes to writing a book, obviously, that's a sound weapon to have in the armoury. As the title alludes, treating his body like a temple and mind like a monk's has never been top of Plato's agenda. That means there are plenty of anecdotes about nicking his parents' car, getting up to no good at school and alcoholfuelled antics. But what Plato pulls off well is keeping these to just a handful of paragraphs. He's not forgotten that it's his 97 BTCC wins and two titles that have gained him a great many fans, and so the motorsport stories — whether on track or the fierce political battles — receive pages of coverage at a time. For an Autosport reader, that's a welcome balance. thorough detail. Likewise, the internal fallout at Triple Eight in 2001, which led to Roland Dane sacking Plato only minutes after winning his maiden BTCC crown, is handled with great depth. And while it's clear how much Plato admires Williams, the reader is left in no uncertain terms as to the sentiment held towards Dane and Plato's then-Vauxhall team-mate Yvan Muller.

Away from the team trailer, his befriending of fellow Monaco residents Roy Salvadori and Roger Moore in particular makes for strong reading. Also, the episode where Plato is forced to remove stickers that he placed around the cabin of an aeroplane on a flight to Dubai serves up some genuine laugh-out-loud moments.

One inclusion is less well judged, however. There's one drunken night out in Monaco that culminates in Plato exposing himself to an unsuspecting woman. That section is just downright uncomfortable to read and probably – and rightfully – would have been left out by another editor. The space would have been far better occupied by lifting the veil on Plato's discontent at Subaru, a chapter which he justifies for its notable

For example, although it's now well known that Plato pretty much ambushed Frank Williams to gain the seat in the second Renault Laguna for 1997, here it receives absence on account of needing to add another "500 pages" to this 300-page title. It is, though, the only such passage which generates such a strong reaction. The rest of the stories earn their place.

With that said, this is the Plato brand undiluted – probably similar to what he was drinking that night in the Principality. For those who know Plato or have seen even a handful of his interviews, his autobiography is totally authentic. That is to say, there's plenty of arrogance and a certain readiness to stir the pot, both of which he readily acknowledges.

Matt Neal, who doesn't receive a mention until the final 60 pages, does bear the brunt of that. You can bet the triple BTCC champion has read the book to see





#A

Join the 2019 Aston Martin Autosport BRDC Award finalists – Enaam Ahmed, Jamie Chadwick, Johnathan Hoggard and Ayrton Simmons – at Silverstone in MotorSport Vision Formula 2, Ligier LMP3 and Garage 59-run Aston Martin Vantage GT3 machinery as they fight for a top prize of a test in a Red Bull Formula 1 car and £200,000. **Go to bit.ly/AMABA19**

NS, PURE PLATO



what recognition he gets. It's not flattering, as he comes away third of Plato's three main rivals — behind Muller and Alain Menu — on account of his inferior driving ability (so says Plato) and heavy-handed style in the Honda Integra (which is rightly judged not to be a true touring car). But all the while Plato makes light of what

WHAT'S ON

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Highlights Sky Sports F1, Sun 1700, Channel 4, Sun 1805

FIA Formula 2

Round 12/12 Yas Marina, United Arab Emirates 30 November-1 December IV Live Sky Sports F1, Sat 1440, Sun 0920





he knows to be deliberately provocative jabs. He also is well aware that this rivalry did wonders for the BTCC's wider profile, and so both intentionally played it up.

If you like Plato, then nothing but this book will do. He isn't popped straight from the now-conventional racing driver mould. But, equally, it's easy to imagine his great many detractors might hate each sentence.

It's this divisiveness that has kept Plato in the limelight and verging on being a household name. For those who love Plato for what he has done for national racing, or just want to live vicariously through some of his many alcohol-induced escapades, there's plenty of laughs to be had and insight on offer.

MATT KEW

28 NOVEMBER 2019 AUTOSPORT.COM 77



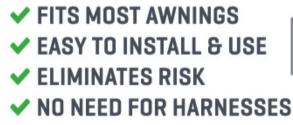
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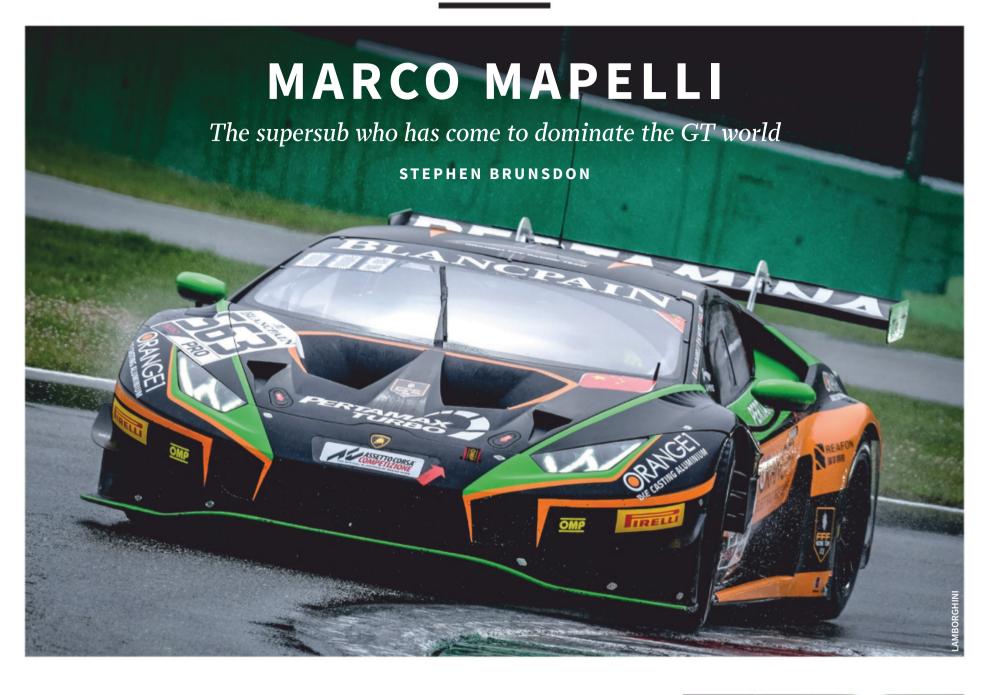
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FINISHING STRAIGHT

INTRODUCING



Μ

arco Mapelli doesn't fit the usual 'Introducing' bill. Aged 32, he's not a junior singleseater hot shot. But the recently crowned Blancpain

GT Series champion, a title won alongside team-mate and fellow Lamborghini factory driver Andrea Caldarelli, has accepted a life lived in the shadows of others around him.

"I've been very lucky having people help me go racing," Mapelli says. "I never like to use the word 'career', but motorsport is dominated by money in the beginning, so you need it if you want to keep racing.

"And then what really matters is the team. It's never just one person who makes the difference, it's everyone. I don't want to be the superstar — I want to work with the team, stay focused and move in the right direction with the car all the time." What is clear is that Mapelli is a consummate professional, even if he reluctantly accepts this is definitely his 'career'. His trajectory up the GT3 ranks culminated with the 2019 Blancpain overall, Sprint and Endurance 'triple crown'.

Born in Seregno in Lombardy, a 20-minute drive from Monza, it's hardly a surprise that Mapelli was a keen karter in his youth. He made the transition to cars in 2004, but it wasn't until he left Italy that a firm impression was made in Australian Formula 3 three years later. One win – at Eastern Creek – and a further two podiums helped him secure fifth in the points.

The following two seasons in 2008 and 2009 were spent in the Italian Ferrari Challenge, before he won title in the secondary Cup class in the 2010 Italian GT Championship at the wheel of a 430.

"In 2010, I started the season in March because at that point I didn't have a seat and the team called me and said, 'Let's try it'. The year after, I moved to Italy's Carrera Cup and that allowed me to become known



"I DON'T WANT TO BE THE SUPERSTAR – I WANT TO WORK WITH THE TEAM AND STAY FOCUSED"

by the Porsche guys. There were some drivers who had clashes and they called me in [to sub]. This was basically my career, replacing people and trying to find a seat in a championship is not easy. Then in 2014, when Audi called it was a little bit easier." Such is the competitiveness of Blancpain, it is hard enough to win one title, let alone three. Mapelli still regards this year as an "unexpected surprise", but anyone who knows him will tell you it's perseverance like few others that has helped him become one of the best — if not most understated — GT drivers in the world. **#**



Age 32

2019 1st in Blancpain GT Series Europe (FFF Racing Team Lamborghini Huracan)
2018 5th in Blancpain GT Asia (FFF Lambo)
2016 3rd in Italian GT Championship (Audi Sport Italia Audi R8 LMS)
2015 2nd in Italian GT (ASI Audi)
2014 3rd in Italian GT (ASI Audi)
2011 2nd in Italian Carrera Cup



FROM THE ARCHIVE

Jacky Ickx is held aloft by a sea of fans as he celebrates victory in the 1970 Austrian Grand Prix, staged for the first time at the Osterreichring. Ickx had qualified his Ferrari 312B in third, behind team-mate Clay Regazzoni and poleman Jochen Rindt (Lotus-Cosworth 72C), but the Ferrari duo jumped Rindt at the start, and by lap two were comfortable enough for 'Regga' to wave Ickx past. Rindt later retired with engine failure. Regazzoni duly took his first podium finish in second, ahead of Rolf Stommelen (Brabham-Cosworth BT33), making his sole podium appearance.



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QUIZ



2) Who is this?

This cheerful soul has talent to burn but has a habit of being in the right place at the wrong time.

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He had a gem of an engine when you needed a star, but was still the driver in demand when a new series emerged.

Bad luck blighted him from the start, but he was on top of the world when his country came calling. He eventually got the results his skills merited but by now the big ship had sailed.

An endurance test gave him a chance to be the car in front, but that didn't end well.

He made the surprise switch to a small boat on a different shore, before getting the chance once again in picturesque surroundings.

3) On this day...

A The first Spaniard to race in F1, Paco Godia, died on this day in 1990. What car was he driving when he finished a career-best fourth in the 1956 German GP?

B Which car claimed its first World Rally Championship win on this day in 1985?

C Who scored her only World Rally Championship point on this day in 1991?

D Lee Wallard died on this day in 1963. In which year did he win the Indianapolis 500?

E Which champion Holden touring car driver scored his last win for the marque on this day in 1976 before defecting to arch-rival Ford?





LAST WEEK'S ANSWERS Who, what, where, when? John Nicholson, Lyncar-Ford 006, Silverstone, 19 July 1975. Who is this? Bruce McLaren. On this day A) 1983 United States GP West. B) Giuseppe Farina, Froilan Gonzalez. C) Snetterton 1993. D) Russell Brookes. E) Kevin Lepage. Name the helmet Chris Amon.



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Autosport, ISSN number 0269946X, is published weekly by Autosport Media UK Ltd, 1 Eton Street, Richmond, TW9 1AG, United Kingdom. Airfreight and mailing in the USA by agent named Air Business Ltd, c/o Worldnet Shipping Inc., 156-15, 146th Avenue, 2nd Floor, Jamaica, NY 11434, USA. Periodicals postage paid at Jamaica NY 11431. Subscription records are maintained at Autosport Media UK Ltd, 1 Eton Street, Richmond, TW9 1AG. Air Business Ltd is acting as our mailing agent.

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CIRCULATION TRADE

Seymour Distribution Ltd, 2 East Poultry Avenue, London, EC1A 9PT. Tel: +44 (0) 20 7429 4000. Printed by William Gibbons & Sons Ltd, 28 Planetary Road, Willenhall, Wolverhampton WV13 3XT. ISSN 0269-946X. Autosport is published weekly by

Who will end the year on the biggest high?

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