



GLIMMER OF LIGHT EMERGES FROM THE DARKNESS

The Le Mans 24 Hours marked a sad end to an endurance racing era, but Automobile Club de l'Ouest president Pierre Fillon tells **William Kimberley** why there are many reasons for optimism

THE 88th running of the Le Mans 24 Hours was possibly the strangest in its long history.

There were no spectators present at the circuit and rather than being held in mid-June, with the longer days, it was held in mid-September. However, it was not the first time that the race was not held in mid-June. The inaugural event in 1923, for instance, took place at the end of May. In 1956, it was held on 28-29 July due to major safety improvement work and in 1968, the political and social unrest in May resulted in postponement to 28-29 September.

With night-time action this year accounting for almost half of the race – 11 hours and 46 minutes to be exact, 3 hours 40 minutes more than mid-June – and different weather conditions, lower temperatures and visibility, it was a whole new level of focus for the competitors.

For Automobile Club de l'Ouest (ACO) president Pierre Fillon and his team, it also represented altogether quite a challenge.

"For sure it was very difficult for us," says Fillon. "As early as March, we realised that it wasn't going to be possible

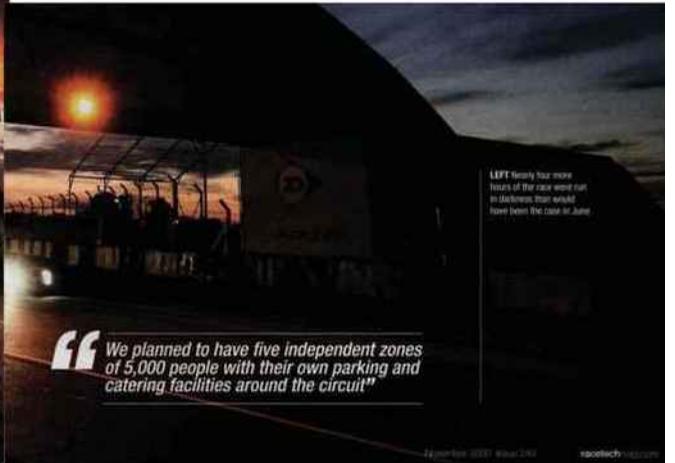
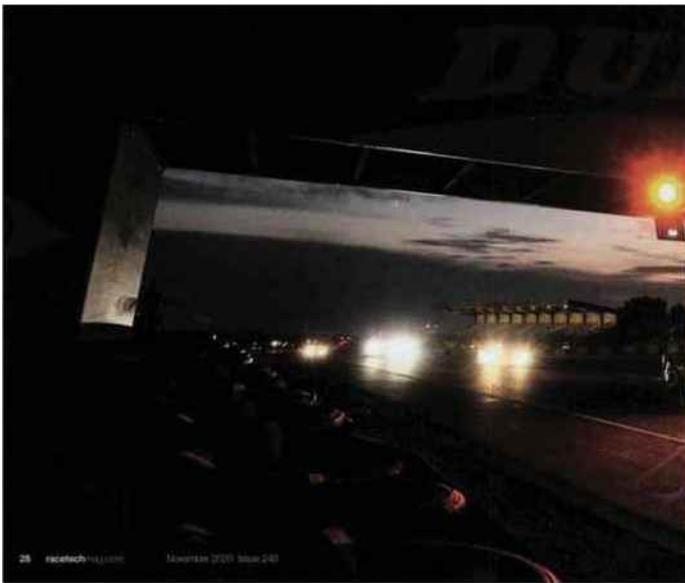
to have the race in June, but we never considered cancelling it. I think if we had done so, we would have lost half the grid and that would possibly have had severe implications for the future."

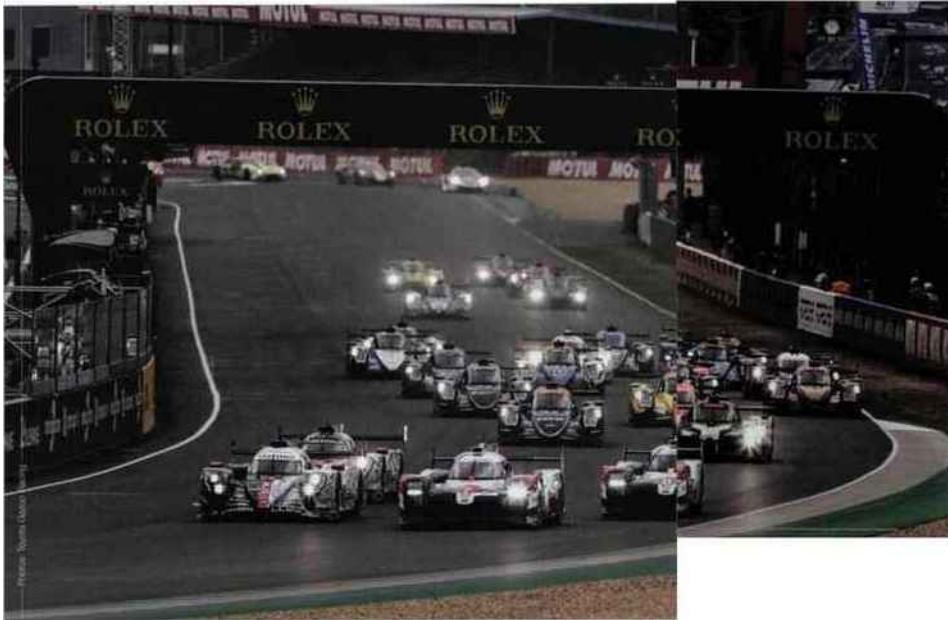
There was also the question of spectators. Typically attracting crowds of hundreds of thousands over the week, this year it was very different due to the COVID pandemic.

"When we postponed the race until September, we expected to have some spectators, albeit limited as in July in France all events were limited to 5,000 people until the end of August," admits Fillon. "So we planned to have five independent zones of 5,000 people with their own parking and catering facilities around the circuit.

"We put a lot of work into that but were then informed by the local authorities that the gathering of 5,000 people would be rescinded until the end of October. That still left 8,000 people, including teams and administration officials to manage.

"The most challenging aspect was complying with the COVID protocol that we had to put in place, which we began to work on in July. We need to comply with both the French and the ▶





ABOVE Filion kept faith with the new Hypercar plans while others wavered

LEFT A Le Mans 24 Hours without spectators was a sad way to celebrate Toyota's hat-trick of victories and the end of a successful era for the outgoing LMP1 cars

BELOW Toyota's new GR Super Sport hypercar made its first public outing with a cameo appearance at Le Mans. It will be used as the basis for a racing version that will run in the new Le Mans Hypercar class next year





FIA's protocol, which meant that everyone had to have a PCR test 96 hours before attending the event, so all the paperwork needed was a huge challenge. We also organised some bubbles that included race control, the press room and the support races such as the Porsche Cup and the Road to Le Mans, but there could not be any link between them. We took a lot of time to work on that."

More than ever, the 2020 race was an event that was about more than merely motorsport. "We launched an appeal for funds in aid of the French Intensive Care Society," explains Fillon. "It was important to us to show our support for the healthcare workers who have been working tirelessly these past few months to combat the COVID-19 virus."

DAWN OF A NEW ERA

In one sense, it was a sad end to what had been a very successful era for endurance racing and Le Mans, but the future looks healthy with the convergence of the WEC and IMSA regulations.

"I think we have a very attractive programme for manufacturers and we are in discussions with a number of them, including American ones, so we are on an upwards trajectory at the moment," says Fillon. "We are working a lot on the cost so that even privateer teams have a chance of winning."

There will be two classes – LMH (Le Mans Hypercar) and LMDh (Le Mans Daytona h) – that will see the two classes of cars running together and competing for overall victory. LMH has been jointly conceived by the ACO and the FIA as a



successor to LMP1 from 2021 onwards. Unlike its predecessor class, where bespoke prototypes were created to race in the category, cars entered in the Le Mans Hypercar class can either be race-ready versions of existing hypercars, or specially designed prototypes with hybrid power being optional for manufacturers. In a nod to WEC, competitors in Hypercar must build at least 20 road cars based on their prototypes within two years of joining the series.

The two salient points of the LMDh regulations – which were revealed by MSA technical director Matt Kurdock and ACO technical director Thierry Bouvet at the pre-race press conference – are that the cars will feature hybrid engine technology, while





the estimated cost of a complete LMDh car, without the engine, is one million Euro (\$1.1-1.2 million).

Major automotive manufacturers will work together with one of four approved chassis constructors – Dallara, Ligier, Multimatic or ORECA – to develop their LMDh race cars. Between the manufacturer's internal combustion engine and a spec hybrid powertrain system, each LMDh car will have a combined power output of 500 kW (670 hp). Bosch, Williams Advanced Engineering and Xtrac were introduced as hybrid powertrain suppliers for all LMDh cars. The Bosch motor is integrated with the Xtrac gearbox, while the Williams Advanced Engineering battery will be integrated with the Bosch motor controller. This is all in a compact assembly, which is installed underneath the survival cell in a compartment isolated from the driver.

Minimum car weight will be 1,030 kg (2,270 lb), with a maximum width of two metres, a maximum length of 5.1 metres and a common wheelbase for all cars of 3.15 metres.

Each LMDh car will allow freedom for enhanced upper body styling, enabling each automotive manufacturer to bring their own identity and styling cues, while the cars will have a controlled underfloor.

"I think this demonstrates effective work and collaboration between ACO and IMSA," says Fillon. "Actually, we should have announced this in June had we not had the health crisis."

The Le Mans weekend was marked by announcements that both Peugeot and Alpine were committing to the new rules. The latter will compete next year in the non-hybrid LMP1 class, while the Peugeot hybrid-electric hypercar will enter in 2022.

The car will produce 670 horsepower, Peugeot says, and be all-wheel drive, conforming with the Hypercar regulations

ABOVE & BELOW Glickenhaus and ByKolles have both registered their intent to be on the 2021 grid with hypercars



Adrenal Media/WEC

ABOVE Fillon is excited by the announcement that the Alpine brand will step up from LMP2, running an LMP1 car for a season as the prelude to a hypercar project



CONVERGENCE What they said

ENDURANCE racing's new convergence rules have taken more than two years to thrash out. But they have been very well accepted by the US manufacturers who now see they have a chance of outright victory at Le Mans, and are widely welcomed.

"Cadillac congratulates ACO and IMSA on their announcement of convergence in the premier class of prototype racing," said Mark Kent, director of Cadillac Racing. "Since the introduction of the Cadillac DPi-V.R in 2017, we have had tremendous success in North America in the IMSA WeatherTech SportsCar Championship and are encouraged by the prospect of an international format. Once we get more details, we will evaluate whether our participation is consistent with our company's future vision."

"It's super exciting for motorsport in general," commented Nelson Cosgrove, director of Mazda Motorsports. "This gives us a wonderful prospect for the next 10 years to run competitively and globally."

"We have been asking for this merger for several years," said Roger Penske, owner of Acura Team Penske. "The Le Mans 24 Hours is one of the races we have never won. We have to go there to try to win."

"This is positive and major news for the world endurance races carried by the ACO and IMSA," said Zak Brown, president and CEO of McLaren. "It's a great vision and collaboration to create better races and therefore better entertainment for fans. We are at the dawn of a new era."

"This is a fantastic opportunity to enter a programme that allows a car to be designed from an already proven LMP2 chassis that can race at Le Mans and Daytona, both in IMSA and WEC," commented Richard Dean, co-founder of United Autosports.

"It is heartening to see the support for the championship as we head into a new set of technical regulations from next year onwards, that is the new top class which we are calling Hypercar," said FIA president Jean Todt. 

This means a maximum output of 500 kW – 670.5 hp, down from 750 hp first set for the Hypercar class – and a minimum weight of 1,030 kg (2,271 lb), down from 1,100 kg (2,425 lb). With that established, LMDh and LMH cars will still need to run together in order to determine the beginning of a Balance of Performance formula.

HYDROGEN

The ACO has long been an advocate of hydrogen in cars, Fillon saying that the plan is still to race hydrogen cars in 2024. On the Friday preceding the race, the new **H24**, which is lighter, technologically more evolved and quicker than the current LMPH2G, was unveiled by the **H24Racing** team.

Plastic Omnium will be the exclusive supplier of hydrogen gas storage systems for all teams competing in this new hydrogen category.

The high-pressure hydrogen storage systems developed by Plastic Omnium will be subjected to highly demanding operating conditions in terms of speed, refuelling frequency and temperature. They will be certified to automotive standards and will enable the company to showcase its expertise in Type 4 tanks – carbon-fibre shells with a plastic liner – and strengthen its links with the car manufacturers pioneering this technology.





Toyota Gazoo Racing

"For this project, we'll be developing systems subject to extreme operating conditions. Motorsport and large-scale auto industry both require performance, safety and innovation, and MissionH24 is more than that. We are working with Total on that technological demonstration – it's an amazing laboratory in which to accelerate our hydrogen storage innovations, working closely with auto manufacturers," says Christian Kopp, president and CEO of Plastic Omnium Clean Energy Systems.

Another partner in the project is Michelin. Through the intermediary of Symbio, the joint venture it has formed with the automotive equipment manufacturer Faurecia, it seeks to accelerate hydrogen and fuel cell technology. By taking its technology forward in stages in the course of the H24 development, Symbio stands to glean valuable experience over a relatively short timeframe, while the data it harvests will accelerate the development of efficient technical solutions likely to move on to the production phase. It expects to forge a competitive advantage in its field as it seeks to establish itself as a major player in the world of fuel-cell mobility over the coming years.

Fillon explained during the Le Mans weekend that the viability of hydrogen was

no longer a case of "science fiction" and he has high hopes for the H24 project.

"The idea is that this car will be able to compete against the Hypercars," he says of the H24 category. "The goal today is for them to lap Le Mans in 3m 30s, developing an expertise and knowledge that can be used in trucks, boats and planes. When it comes to refuelling, the goal is to put in 12 kg of hydrogen in one minute and a half, which is a big challenge to achieve."

The ACO is going ahead with the installation of a permanent multi-vehicle hydrogen refuelling station on the area of the 24 Hours of Le Mans circuit as an expansion of its aim to promote hydrogen in motorsport. It will serve private cars, vehicles transporting personnel and merchandise as well as racing prototypes developed in the context of MissionH24.

"We really believe in this technology and are working with seven manufacturers for 2024," he says. 

ABOVE A glimpse of the future as Toyota's TS050 Hybrid-based hypercar shares the Le Mans grid with the MissionH24 hydrogen prototype



RIGHT LMDh's hybrid powertrain suppliers have been revealed to be Bosch, Xtrac and Williams Advanced Engineering, the latter contributing its battery expertise