



PORSCHE

Press Release

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FIA World Endurance Championship (WEC) LMP1 presentation

2015 Porsche 919 Hybrid – proven base was extensively optimised

Stuttgart. At the Paul Ricard Circuit in France today, Porsche presented the second generation of its Le Mans Prototype 919 Hybrid race car as a technical evolution in a three-colour concept. Porsche also confirmed it will switch to the highest of the four energy categories in the LMP1 class. The performance of the energy recovery system was able to be increased by around one-third as compared to 2014. This means the 919 Hybrid is competitive to race in the 8-megajoule category. The new revolutionary WEC regulations, which went into effect in 2014, call for the use of powerful and innovative hybrid drive systems – and this was actually the main reason why Porsche decided to return to the world of top-level motor racing.

The Porsche team will use two of its extensively further developed technology platforms in all eight races of the FIA World Endurance Championship (WEC). The cars will be white and will also carry the "Porsche Intelligent Performance" motto on their bodywork. This also applies to the team's third 919 Hybrid, which will race at Spa-Francorchamps on May 2. However, for the high point of the season – the 24 Hours of Le Mans on June 13–14, 2015 – the team will send a white, a black and a red Porsche 919 Hybrid onto the circuit.

Wolfgang Hatz, board member for research and development at Porsche AG, stated the following at the presentation of the LMP1 prototypes in southern France: "The LMP1 programme at Porsche focuses on extensively networked cooperation between the engineers who work on our innovative drive system concept." The WEC

regulations are designed to ensure that the most efficient car wins. The automotive industry in general must adopt exactly this approach to remain viable. Porsche already offers three plug-in hybrid production sports cars today. "This sets us apart from the competition and we plan to grow even stronger in this segment," said Hatz. "To this end, we need substantial expertise within the company. The tremendous pressure to perform in the top LMP1 category means our development specialists for production cars learn a lot in a very short time. On the other hand, young engineers receive top-quality training at turbo speed, and this knowledge can later be applied very effectively in series production. Learning from the race track for everyday roads is a tradition at Porsche. Therefore it makes perfect sense to create at least a partial link between our Le Mans prototypes and our motor racing history by means of the colours we use."

The starting number and colour of the red prototype are a tribute to the Porsche that captured the first of what are now a total of 16 overall victories for the brand in Le Mans in 1970. No other brand has claimed so many victories in what is believed to be the world's most demanding endurance race. The base colour of the Porsche 917 KH ("short-tail") in "Salzburg Design" that won the race 45 years ago on June 14, 1970 was also red. The winning drivers then were Hans Herrmann from Germany, who is now 87, and Richard Attwood from the UK, who is 74 today. In 2015, at the 83rd running of the classic race at Le Mans, the red prototype with starting number 17 will be driven by Timo Bernhard, 34 (Germany), Brendon Hartley, 25 (New Zealand) and Mark Webber, 38 (Australia).

The black LMP1 with starting number 18 is a symbol of the close technical kinship between the Porsche 919 Hybrid racing car and the Porsche 918 Spyder super sports car, which is also equipped with a hybrid drive. It was also a black 918 that on September 4, 2013 set a new record for a street-legal production sports car by completing a lap of more than 20 kilometres on the North Loop of the Nürburgring in six minutes and 57 seconds. The record-setting driver here was Marc Lieb, 34, from

Germany. Lieb will also drive the black 919 in Le Mans this year – together with Romain Dumas, 37, (France) and Neel Jani, 31 (Switzerland).

The team's third car – the white 919 Hybrid with starting number 19 – will be competing in Le Mans in the colour Porsche chose for its return to top-notch racing after a 16-year absence. White, which is a traditional colour for racing cars from Germany, will also be used with the two Porsche 911 RSR factory cars that will race in the GTE Pro Class. In Le Mans, the third 919 will be driven by Earl Bamber, 24 (New Zealand), F 1 driver Nico Hülkenberg, 27 (Germany) and Nick Tandy, 30 (UK).

Evolution of the 919: more efficient, more rigid, easier to handle, lighter and more robust

Although the basic concept of the Class 1 Le Mans Prototype (LMP1) was retained in the second generation, virtually every component was refined. The ambitious goals for the next evolutionary stage were to make the vehicle more efficient, more rigid, easier to handle, lighter and yet more robust.

The 919 is equipped with a 2-litre V4 turbocharged petrol engine with an output of more than 500 hp, which powers the rear axle, and an electric motor with over 400 hp that drives the front wheels and gets its electricity from two energy-recovery systems. A liquid-cooled lithium-ion battery temporarily stores converted braking energy from the front axle as well as converted exhaust-gas energy. The reworked drive system is more powerful and more efficient than before. The Porsche 919 Hybrid was homologated for the top energy-recovery category (8 megajoules for one lap in Le Mans) for the first time in 2015.

The vehicle's lower weight and improved overall rigidity, as well as optimisations made to the suspension and aerodynamics, improved the handling of the endurance racing car. Despite the significant weight reductions, the engineers were still able to make certain key components more robust.

The 2015 FIA World Endurance Championship (WEC) begins on April 12

Following the so-called Prologue – the test that will be conducted with the entire WEC field on March 27 and 28 at the Paul Ricard Circuit (FRA) – the 2015 WEC will kick off on April 12 in Silverstone (GBR). All WEC races, with the exception of Le Mans, will have a duration of six hours. The championship will move to Spa (BEL) on May 2 and Le Mans (FRA) on June 13–14. The race at the Nürburgring (DEU) on August 30 is a new addition to the WEC, which will then leave Europe and head to Austin, Texas (USA) for a race on September 19. The next two races will be held in Fuji (JPN) on October 11 and Shanghai (CHN) on November 1. The finale will take place in Bahrain on November 21.

The racing team led by Fritz Enzinger (AUT), Vice President LMP1, is based at the Porsche research and development centre in Weissach, and has more than 230 employees. Well over a hundred of them are engineers who work for Technical Director Alexander Hitzinger (DEU). Team Director Andreas Seidl (DEU) handles all operational issues. "Everyone in the team is looking forward excitedly to our second season," said Enzinger. "We drove the new Porsche 919 Hybrid over a total of 26,675 lonely test kilometres at four different race tracks. Now, we're very much looking forward to meeting the entire FIA WEC field during the prologue here at Paul Ricard."

Note: The complete press kit that describes the technical development of the Porsche 919 Hybrid, and which also includes driver portraits, team-manager profiles and an extensive range of additional information, is available in PDF format from the Porsche press database: <https://presse.porsche.de>. Photographs and video material are also available at the website.

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