RENAULT
Passion for life

Press Kit 2016

RENAULT MOTORSPORT STRATEGY

RENAULT SPORT

Contents

Renault Press

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Passion for life

PRESS KIT

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Introduction

The forging of Renault Sport Racing and Renault Sport Cars is the next chapter in an already compelling story.

For more than 115 years Renault has embraced the challenge of motorsport in multiple guises. It recognised the value of competitive activities for technical and commercial gain: in December 1898 Louis Renault drove the Type A Voiturette up the steepest street in Paris, the rue Lepic. The first orders for the ground-breaking car with direct drive flooded in. In 1902 the nimble, lightweight Type K, fitted with Renault's first 4-cylinder engine, took victory in the Paris-Vienna rally. Again, many more cars were sold. Going through the years, in 1977 Renault introduced the first-ever turbocharged car to F1. Turbocharging is now a standard feature on both high-performance and volume roadcars. In 1992 we won the championship as an engine partner to Williams with the most technically advanced car ever seen in F1. Today, the heir of this fruitful relationship, the Clio Williams, is still held to be the best hot hatch of a generation.

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Whether as a partner, engine supplier or team owner, we have remained loyal to motorsport. In Formula 1 we have put our spirit into more than 600 races and this drive has paid dividends. In 2005 we fought tooth and nail to secure a first World Championship title under the Renault banner. From 2007 to 2013 we became the most successful engine supplier in the V8 era, winning four consecutive titles. This passion has driven us to 12 Constructors' titles, 11 Drivers' titles and 168 Grand Prix wins overall. No other volume manufacturer has enjoyed such success nor continuous commitment.

Now, there is a hunger for more.

We have set very aggressive targets – not to pay homage to the success of the past, but to re-energise multiple platforms within Groupe Renault. We aim to win or, rather, to put ourselves into a position to challenge for wins in the long term. But we also need to harness the value of our involvement through our marketing and communications strategies immediately.

F1 is an opportunity for Renault to enhance the performance and technical developments of its road car range, but also to promote them to a massive following on a global footing. With a worldwide audience of more than 450 million viewers, F1 is one of the most publicised sports in the world, covered in five continents and in emerging markets in particular. Its growth potential is enormous, with many opportunities yet to be fully exploited, including social media networks and video games. The opportunities to promote the Renault brand and products are overwhelming.

Our F1 programme will form the core of the new entity, Renault Sport Racing, which regroups all competitive racing programmes from Formula E to Formula Renault 2.0 and customer racing. This will dovetail with the evolution of Renault Sport Technologies to Renault Sport Cars, which will take responsibility for the development and commercialisation of Renault's sports car portfolio. This revised competitive architecture will allow osmosis of technology, personnel and marketing benefits throughout the group.

In fact, the name Renault Sport Formula One Team underscores the crossover between F1 and roadcars and the importance we place on this aspect. Renault Sport Cars is recognised worldwide for its excellence in hot hatches such as the Mégane R.S. and Clio R.S. In the past we have harnessed the benefits of engine technologies such as turbocharging and downsizing, and technologies developed on track in competitive activities, including the 4CONTROL steering system and electronic dual clutch system, are now core performance enhancements of the Renault Sport range. Now we have the ideal opportunity to go even further, particularly since we have decided to double our R&D budget and investment in the Renault Sport range in tandem with our renewed F1 commitment.

Moreover, brands within the Renault-Nissan Alliance will be able to use the new team as a launch pad for their own strategic ventures. Infiniti will join as a technical partner for the energy recovery system, while Nissan will enjoy a greater involvement and benefit from the excellent facility at Viry-Châtillon.

It is clear that from 2016, motorsport will become firmly entrenched within Renault.

Jérôme Stoll, Chief Performance Officer of Renault and President of Renault Sport Racing

For over a century Renault's company strategy has centred on motorsport and harnessing its benefits for increased road car sales. The adventure now continues in 2016 as Renault creates Renault Sport Racing and Renault Sport Cars.

Within this new structure, the Renault Sport Formula One Team will compete in the FIA Formula One World Championship. The decision to return to team ownership is based on a solid, well-considered business strategy that we firmly believe will bring long term gains to Renault and other members of the Renault-Nissan Alliance. The benefits of F1 are undeniable: access to a large, worldwide TV and online audience, huge growth potential, access to developing markets and fast-paced, dynamic competition with some of the world's leading manufacturers.

Equally there is a real opportunity to showcase French creative technical excellence while testing avant-garde new innovations in the toughest arenas. Through our competitive activities, millions of Renault road users are already enjoying the benefits of turbocharging, greater fuel economy and highly sophisticated electrical vehicles that include improved powertrain architecture definition for efficiency optimization. Now, through Renault Sport Racing, we can go beyond and harness areas such as aerodynamics, driver response and improved suspension. The opportunities are almost endless and will serve as a great motivator for the technical teams across Renault Sport Cars and the Renault brand.

On the other side, F1 is a powerful marketing tool and one each of our markets will be able to dial into. The announcement was greeted with huge enthusiasm internally and I am very much looking forward to a range of innovative campaigns around our equally exciting new products.

As much as we are anticipating the F1 season, we are also working hard on other competitive activities including Formula E, the Renault Sport R.S.01 Trophy and various racing formulae. All the activities will be brought under the Renault Sport Racing banner led by Cyril Abiteboul as Managing Director and Frédéric Vasseur as Racing Director, responsible for sporting and technical matters. This new entity will create a coherent team in which developments are able to cross-pollinate across multiple disciplines. To this end, some 30 staff working on various racing activities at Les Ulis have been regrouped into Viry-Châtillon alongside their F1 colleagues.

I am delighted that Bob Bell returns to Renault to oversee the technical teams at Enstone and Viry. Nick Chester has been a strong technical director for the chassis operation in difficult times and will continue to guide Enstone, while Rémi Taffin will use his hands-on racing experience as Technical Director for Viry. The new structure of the F1 team should see it flourish.

Formula E will remain central to Renault Sport Racing, with the successful collaboration with e.dams continuing until at least season 4. The strategic importance of Formula E for the Renault brand is highlighted through the strong management team of four-time Formula 1 World Champion Alain Prost and Jean-Paul Driot. Over the next seasons Renault Sport Racing will develop and supply a full powertrain of gearbox and electric motor to the team. Targets are ambitious, with an objective to win both the Drivers' and Teams' title.

Renault Sport Technologies customer racing staff will now come under the banner of Renault Sport Racing, under the continued management of Jean-Pascal Dauce.

The new organisation will allow Renault to connect more efficiently the various categories to which it is currently committed, from rallying with the Clio R3T, rallye raid, and one-make track series including the Clio Cup and Renault Sport R.S.01 Trophy. Renault will also continue its Formula Renault 2.0 single-seater series.

The wider Renault Sport Racing structure will ensure greater benefits for the rest of the group and particularly for Renault Sport Cars, which will develop its international foot print and support the growth of Renault's sales and image. It will continue to be headed by Patrice Ratti as Managing Director.

> *"We recognize that 2016 will be a challenging year for all involved. While our targets in F1 are realistic, we are ambitious in other domains. While we hope success breeds success, any new structure takes time to reach maturity, and this year will be critical in ensuring each foundation stone is solidly placed."*

We need to create strong bonds between Enstone and Viry in the F1 team, and between Enstone and Viry and the rest of Renault Sport Racing. Equally we need Renault Sport Racing and Renault Sport Cars to flourish. If we are successful in opening good lines of communication, open and creative thought and rigorous discipline in each activity then we have every reason to look forward to our sporting future.

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Renault Sport Racing

In 2016 Renault will create a new entity, Renault Sport Racing, that will consolidate all Renault's motorsport activities. Renault Sport Racing will operate across the two Renault sites dedicated to racing activities: Enstone, UK, and Viry–Châtillon, France.

In addition to his primary role of Chairman and CEO of the Groupe Renault, Carlos Ghosn will become Chairman of the Motorsport Supervisory board. Jérôme Stoll continues as President, aided by Cyril Abiteboul as Managing Director and Frédéric Vasseur as Racing Director, responsible for sporting and technical matters. Frédéric will report to Cyril Abiteboul. Guillaume Boisseau, Groupe Renault Brands Director, will lead the marketing efforts of the group to ensure the alignment and activation of the racing programs with Renault's marketing strategy.

RENAULT SPORT FORMULA ONE™ TEAM

At the summit of the motorsport activities will be the newly-created Renault Sport Formula One Team. The name underlines Renault's plans to increase awareness of the Renault Sport brand and the links it intends to further explore between track and road. The new car consists of the R.S.16 chassis, developed and manufactured in the former Renault F1 Team base at Enstone, whilst the R.E.16 power unit will be developed at Renault Sport Racing's facility in Viry-Châtillon.

New methodology will see a number of transverse functions created to manage the administrative functions, resources and technologies necessary to perform in the various disciplines with which Renault Sport Racing is involved.

Renault's Formula E programme will directly benefit from the new structure. Renault will develop its own engine/gearbox assembly at Viry-Châtillon using its cutting edge facilities and personnel highly-trained in drivetrain technology. This will be supplied to partner e.dams for the next three seasons. As reigning champions, the team is determined to uphold its starring role in the second season, with its sights firmly set on the team/drivers double.

Other racing programs, including the Renault Sport R.S.01 high-performance sportscar and Formula Renault 2.0 will have access to the full range of resources and know-how at both Viry and Enstone. In addition to engine dynos and drivetrain development capacity, simulation tools, wind tunnels, driver simulators and vehicle modelling will now be fully available to engineers working within Renault Sport Racing, allowing the brand to thrive in all areas.

Equally, Alliance partners will have access to both Viry and Enstone's facilities. As much as partners will benefit from the know-how developed in the F1 operations' long history, the former will be able to dedicate their expertise where appropriate. Infiniti joins Renault Sport Formula One Team as a partner for the energy recovery system of the F1 power unit, giving the team access to personnel with skills honed on the most powerful hybrid system on the market today.

For Renault and its Alliance partners, Renault Sport Racing represents a wealth of opportunities and almost unlimited potential.

Q&A with Cyril Abiteboul
Renault Sport Racing Managing Director

Managing Director Cyril Abiteboul ensures all aspects of Renault Sport Racing are structured, resourced and working to their optimum potential to deliver on their performance potential. Additionally, Cyril works closely with Renault's Global Marketing team to set Renault Sport Racing's commercial, marketing and communication targets and ensure Groupe Renault takes full advantage of its racing activities.

Cyril knows the Anglo-French team and Renault inside out. After graduating from the Institut National Polytechnique de Grenoble, he joined Renault in 2001 and worked in various positions at company HQ in France and also at the F1 team in Enstone. His commercial acumen saw him appointed Development Director of the Renault F1 Team in 2007, looking after commercial matters, partners and sponsor acquisition. He became Executive Director in 2010 before moving back to Viry in 2011 when Renault re-centred its F1 activities around engine supply. As Deputy Managing Director, Cyril oversaw all contractual relations, marketing and communications activities with partner teams and created a solid platform for Renault as it re-established itself in its new guise.

Cyril's success in the role led to him being head-hunted by the Caterham F1 Team in 2012 to become team principal. He rejoined Renault in September 2014 to become Managing Director of Renault Sport F1 and spear-headed the analysis of reacquiring a team for the Renault brand to fully exploit its long F1 heritage.

Why has Renault returned to F1 as a constructor?
The reasons are threefold. The first is based on a solid business strategy. As an engine supplier our brand visibility was marginal, but it was acceptable when the cost of the technology was contained. With the dual problem of the increased expenditure of the V6 regulations and the level of competition that raised dramatically, it was not the case anymore. As a team, we can achieve improved returns in all areas, such as brand awareness in traditional markets and new media platforms. This leads to the second reason: to use F1 to grow the Renault Sport brand in particular thanks to a controlled communication strategy with a platform that we fully own. The final reason is that Renault is passionate about motorsport. There is a genuine pride in the results of the past and an enthusiasm to do justice to them in the present day.

How was the news greeted at Renault?

Within the Renault group people have naturally been very positive as it is an opportunity for the group to grow and to re-own the results of the past. It also adds an extra sparkle to the brand as it tackles bigger challenges in its core business. At Enstone the atmosphere has been buzzing. When we visited the factory in November there was a lot of work, but the mood was muted. Now it's like a light has gone back on – everyone is flat out, but very optimistic. At Viry it's much the same, despite the huge challenge, there is now a direction. There's a real drive on both sides of the operation to build for the future.

How will Renault Sport Racing function?
The creation of Renault Sport Racing is a very exciting step. For the first time in a long time we have a coherent brand and structure where all personnel working on motorsport disciplines will be managed by the same team. We will have engineers seconded to Formula E, customer programmes and Formula Renault 2.0, amongst other activities, working shoulder to shoulder. This will facilitate collaborations between Formula 1 and other racing activities we have not seen in the past, such as powertrain developments, aerodynamic advancements and, of course, greater flexibility and mobility. The human performance will also be addressed, with the Academy composed of drivers coming from our feeder series and trained to hopefully become F1 material as soon as possible.

Jérôme Stoll, Fred Vasseur and myself will manage the group and create the necessary crossover points to cover a scope fairly wide from rally, to track racecars and single-seaters. But these synergies must not come to the detriment of the F1 team, which will be relatively independent to manage the very specific technical and sporting challenges of the sport. As F1 Chief Technical Officer, Bob Bell will be fully focused on the F1 performance and oversee the technical teams at Enstone and Viry to ensure everyone is following the same path. Nick Chester and Rémi Taffin will manage the technical teams at Enstone and Viry respectively. I'm very happy with this arrangement; we've got strong people in the right roles and a genuine willingness to work together to move forward. We have the budget we need for now, and we need to be cost-efficient and conserve our team spirit as we revitalise existing working models.

How will the Renault brand use Renault Sport Racing?
We aim to use it in several ways. Firstly via the communications and marketing channels with the Renault Sport brand pushed forward through a range of innovative press initiatives and social media campaigns. We also aim to push through technical developments for the road car range by testing them in multiple competitive disciplines.

> *"Equally we hope that the competitive standard will be raised and success in one formula will inspire success in others. One new benefit is also that engineers and other staff working in motorsport will have many career options: there is now a clearer path in motorsport."*

But going beyond this, other members of the Renault-Nissan Alliance will benefit from Renault Sport Racing. F1 can help develop expertise in many areas they have not had access to, plus we will profit in areas that have been developed off track. It's a win-win situation for everyone.

What are the targets for this year?
Each category will have its own target. In Formula 1, we have to be realistic about 2016. In some areas we are playing catch-up – it's no secret that we missed the start of the new power unit regulations and Enstone needs a bit of TLC. This is a year to re-build relations, re-energise both Enstone and Viry and create synergies within the Renault Sport Racing group and the wider Renault-Nissan Alliance. That's not to say that we will write off the year, but we are aiming to put everything in place for improved success in 2017.

In Formula E, the situation is different, as we are clearly the team to beat with e.dams. But we must not get too excited as we have to harness the very strong performance potential of the package, particularly at venues such as the first French ePrix in Paris, and continue to preserve our competitive advantage for future seasons. For Formula E we are utilising the undoubted talents of Alain Prost, which highlights our aspirations for continued success. In other categories, the primary targets will be to continue the redefinition of our motorsport strategy around the Formula 1-Formula E spine, supporting Groupe Renault challenges around the world.

Q&A with Guillaume Boisseau
Groupe Renault Brands Director

Guillaume has wide-ranging experience within Groupe Renault. He joined the group in 1994, where he held several marketing and sales positions.

In 2006, he moved to Belgium as Head of Marketing for Renault Belgium-Luxembourg. And in 2009, he became Marketing & Sales Director for the Asia Africa region.

In 2013 he joined the global marketing team as VP, Brands in charge of brand strategy, brand activation, including motorsport strategy, and events.

How important is Renault's F1 return for the group?
Returning to F1 is part of a larger strategy for the Renault Sport range and the Renault brand as a whole. In recent years Renault has evolved its corporate profile, its road car range and its technology, but a large percentage of the greater public is not aware of the extent of the changes. F1 is a very effective tool to communicate the brand in its new guise. More than 450 million viewers watch the sport annually and the online following is increasing daily. We have access to developing markets that are key to Renault, such as China, Russia and Brazil, while reinforcing our image in developed, traditional markets.

How will the F1 activities be integrated into Renault's marketing strategy?
Renault's passion for motorsport is long-standing and authentic - we have been involved in motorsport for over 115 years, including for the last 40 years through a deep involvement in F1. Having now decided to once again step up our involvement in F1 through the acquisition of a top team, we will equally step up our motorsport communication for the benefit of the Renault brand.

This will take several forms. Firstly, we will convey our passion for motorsport to the existing F1 audience; secondly, we will address new audiences (both in new markets like China and among new customer groups in mature markets who are currently not exposed to F1); and thirdly, we will step up our ambition for the Renault Sport road cars. The high-performance Renault Sport range has innovations developed on track and it can continue to grow through increased motorsport presence.

On a technical footing, do you believe that Renault road users will benefit from the F1 team?
Innovations in the Renault Sport range will be accelerated through the Renault Sport Racing operation and the Renault Sport Formula One Team. We have already deployed in our Renault Sport road cars a range of technologies developed on the race track, such as launch control, turbocharging and efficient downsizing - but additionally we will now have access to aerodynamic tools, simulators and other advanced technologies. We will strengthen the role of Renault Sport as 'hero brand' for Renault, with a number of genuine technology transfers from track to road.

"And some of these technologies will transfer to our mainstream road cars as well. It is a very exciting time for everyone!"

Q&A with Frédéric Vasseur
Renault Sport Racing, Racing Director

Frédéric Vasseur has been one of the leading team principals in single seater racing for over a decade. With the highly successful ART Grand Prix, Vasseur has played a key role in elevating the careers of many current Formula 1 drivers such as Lewis Hamilton, Valtteri Bottas and Nico Rosberg.

ART took Nico Rosberg to the GP2 Series title in 2005, with Lewis Hamilton maintaining the run of trophies in the following season. In GP3, Esteban Gutierrez became the inaugural champion for ART and Valtteri Bottas followed his crown in 2011.

Under the ART identity and its ASM predecessor, Vasseur's squad won 51 of 80 contested F3 Euro Series races between 2004 and 2009, taking the title with Jamie Green in 2004, Lewis Hamilton in 2005, Paul di Resta in 2006, Romain Grosjean in 2007, Nico Hülkenberg in 2008 and Jules Bianchi in 2009.

There's a lot of transition to be undertaken in a short time; how do you manage this?
We know the road map and we have to deliver in the next three or so seasons. The first is to build up the team as one organisation and be sure that everyone works together well. Our first priority is to ensure everything goes smoothly. I don't want to focus only on the process, I know we have to build to success too and we'll have to deliver quickly. There's plenty to do.

What do you think of the component elements of the operation?
Renault has been committed to Formula 1 for over 40 years, and they have a real culture of racing and we see that every day at Viry-Châtillon. Enstone is exactly the same and we can be very proud of that. My first trip to Enstone showed me there was a real attachment to Renault, some of the people here worked for Renault when they were Constructors' champions and Fernando Alonso was winning Drivers' titles. We have a strong basis to build for future success.

This will be your first role in Formula 1, how are you looking forward to this?
It's correct that this is my first role in Formula 1 but I have worked a long apprenticeship in the junior categories and I'm eager to translate everything I've learnt over many years of competing elsewhere into the challenge of Formula 1. This is a new experience for me, but racing is racing and the target is always the same! The approach you need to win is the same no matter what the category.

What attracted the team to select Kevin for driving duties?

Kevin has a good mix of experience and youth. He had a strong race season at McLaren two years ago and showed his ability in the junior categories such as Formula Renault 3.5. He can target winning races and championships as he has the talent. The fact he had a lack of mileage last year will motivate him and he'll be chomping at the bit to get back into it all. It's important for us because we all know 2016 won't be an easy season. We know where we are starting from and we need motivated characters like Kevin to keep pushing hard.

It's a big challenge for Jolyon in his rookie season?
Jolyon goes from being the Third Driver for a private team to becoming the Race Driver for a manufacturer team and the driver with the most experience with the team. He has a very mature head on his shoulders and we know from his 2014 GP2 Series title that he can deliver against the very best on track. It's a rookie year for Jolyon, but we've seen that rookies can deliver so we are happy with the line-up we have behind the wheel.

We have one of France's top young drivers in Esteban. How exciting is it to have him as part of the line-up?
Esteban is the GP3 champion and he beat Max Verstappen to the European Formula 3 title in 2014. He's probably one of the most successful young drivers over the last few years. He will have a fantastic year ahead of him with his role as Third and Reserve Driver for us, as well as further programmes with Mercedes. It's a great opportunity for him and we thank Mercedes-Benz for their support here. Esteban raced for my teams with Mercedes and Genii support and I know his talent and ability.

Q&A With Bob Bell
Renault Sport Formula One Team F1 Chief Technical Officer

Bob has worked in a technical or managerial role that has helped secure nine Constructors' Championships and 10 Drivers' Championships.

He graduated from Queens University Belfast with an Honours Degree in Aeronautical Engineering in 1979, completing a PhD in Aeronautical Engineering in 1982 with a Thesis entitled "A Theoretical and Experimental Study of the Tip Flow Generated by a Wing in Sideslip".

From 1982 – 1988 Bob worked with McLaren International, with positions including Head of Aerodynamics, Head of Research and Development and Project Director Unlimited Land Speed Record Attempt. His first spell at Enstone was 1998 – 99 as Benetton Formula Senior Aerodynamicist, before moving to Jordan Grand Prix for 1999 – 2001 as Head of Vehicle Technology. In 2001 Bob returned to Enstone as Deputy Technical Director then Technical Director (2003 – 2009), He stepped up to be Acting Team Principal (2009) and Managing Director (2010) before joining Mercedes-Benz Grand Prix Ltd as Technical Director from 2011 to 2014.

What does your new role as Chief Technical Officer entail?
I will oversee the technical functioning between the two sites of Viry and Enstone. The primary purpose is to ensure a consistent strategic approach and that we make the optimum use of the joint resources at our disposal. I will work closely with each site's technical head, Nick Chester and Rémi Taffin. This means I will spend around half of my time at each site where I will assist in setting the direction for chassis and engine development to ensure a consistent approach between the two locations. In terms of direct reports, my interaction with the two technical directors will not necessarily be on a day to day basis, but keeping a strategic view on how everything is progressing and ensuring that the correct level of communication is happening so we're all agreed on how we're going forward and focused on our priorities.

What is your opinion of what you've seen so far?
There is tremendous potential to be tapped on both sides of the equation. To characterise the current situation in both organisations, firstly you have Enstone, which is an organisation that has been starved of resources in recent times, but structurally is pretty sound. Viry, on the other hand, could be characterised as being resourced well enough to do a credible job however recent history has seen a very difficult situation with the change to the latest power units and this has impacted on how the facility operates.

> *"The key for Viry is galvanising the leadership and direction with the new opportunities that a works F1 entry provides. The focus is more structural whereas at Enstone it's more resource-based. We're clear on what the issues have been in the past and we're working on putting them right."*

What's the target?
Merging the two operations towards becoming one entity, more than they have ever been before. If you look at the team's history and also the development of F1 in general, in the V8 and further back in the V10 generation, it was possible to have a more arms-length relationship between the engine and chassis side of a team, whereas now to be successful you need far more integration with the more complex power units and the evolution brought by the intensity of competition. This integration is not just measured in track performance, it's measured by how you optimise the resources available. It's not an exercise in winning at all costs; it's an exercise in winning in a controlled manner. With two locations we can look for economies of scale to ensure we're getting the maximum and find operational efficiencies. We need to be much more integrated and less disparate than before.

How exciting is this project?
This is a tremendously exciting project. I've always had a massive respect for what the engine manufacturers do in Formula 1 and it's an incredibly difficult challenge for any manufacturer no matter how good the final product is relative to the other engines. To have the opportunity to have influence over both the chassis side and engine side is an honour and a very challenging responsibility that I am really looking forward to. For everyone involved it's a hugely exciting period to be involved with a new works team that's manufacturer backed and to see it go from what is a low baseline to bring it a level of success and to do this in a sustainable manner is a wonderful journey to be embarking upon. It's something we are all aiming to be proud of. It's a different prospect to buying a team or engine partner that is currently achieving success; any success here will be from everyone's hard work so it's going to be very rewarding.

Q&A with Nick Chester
Renault Sport Formula One Team Chassis Technical Director

Nick graduated from Cambridge in 1991 to join Simtek Research in vehicle simulation, moving to their Formula 1 entry in 1994. He joined Arrows Grand Prix in 1995, first for vehicle simulation then suspension design before becoming Performance Engineer for Damon Hill and Pedro Diniz ('97) then Race Engineer for Mika Salo and Pedro de la Rosa ('98-'99).

In 2000 his Enstone career began, joining Benetton as Test Engineer to Alexander Wurz, Giancarlo Fisichella and Mark Webber. He later became Performance Engineer for Fisichella ('01) then Jarno Trulli ('02-'04); helping the Italian to his first and only Grand Prix victory in Monaco in 2004.

From 2005 Nick took on the position of Head of Vehicle Performance Group, governing suspension, brakes and simulation. VPG played a key role bringing both the Constructors' and Drivers' World Championships back to Enstone in the 2005 / 2006 seasons and introducing the 'tuned mass damper' system that would prove a major innovation of the period.

In 2010 he became Head of Performance Systems, overseeing the VPG as well as Control Systems and Dyno operations. Additionally he oversaw the planning and introduction of Enstone's driver in the loop simulator. From 2011 Nick was Engineering Director, responsible for planning and delivery of the race winning E20 and E21. 2013 saw Nick step up to Technical Director and responsibility for design direction and development of E21, E22, E23 and R.S.16.

What can you tell us about the R.S.16?

The R.S.16 will be the third car produced by Enstone since the era of the V6 hybrid regulations came into play. It builds on all the lessons learnt from our previous two cars and can be seen as an evolution from the E22 and E23. For the second year running we've changed power unit and certain elements of the gestation period for the R.S.16 have been very short, however we think we've got a solid baseline to work from.

Can we expect any surprises from the R.S.16?

We want a stable base to enable us to introduce developments through the year. The first iteration shouldn't have any surprises but we'll be working on a number of aspects to improve the car through the season as well as lay the groundwork for 2017 and beyond.

How tight has the timeline been for the R.S.16?
Very. We were advanced with the development of our chassis with the previous power unit but our focus shifted as the likelihood increased - and was ultimately confirmed - that we would become part of the Renault family once more. It's fair to say we've been very, very busy!

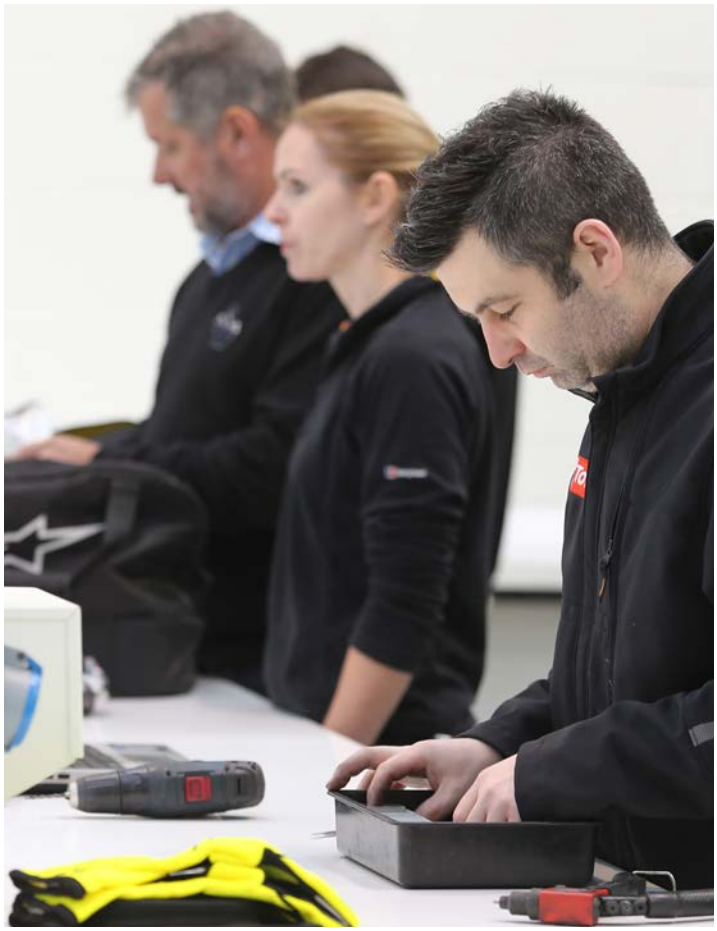
How different is the technical situation in Enstone relative to that of twelve months ago?
We're now Renault and we have a long term project ahead of us, which is very exciting. We are able to plan long term now, which will help us develop and enable us to look into new areas. Already we've seen that we can make terrific progress in a short timeframe without the struggles we had last year to get all the components for the car ready.

What's the balance between the long term programme and the short term needs for the 2016 challenger?
It's something of a juggling act in the short term. It was a very late switch in the development programme for the 2016 car, which has meant a tight schedule with the chassis. It's been a super compact programme, but we've seen with the homologation of the chassis that we can react quickly and do a great job. The response of the workforce at Enstone has been terrific. After all the travails of the past, everyone is back and firing on all cylinders working relentlessly on the tasks at hand. It's amazing to see.

What are the technical objectives for the season?

We have a focus on developing the building blocks to help us progress for 2017. We want to improve reliability, develop the integration between the chassis and the power unit, all with the target of having a far more integrated car for the future. A lot of our focus is also about building the team and the infrastructure. 2016 is about getting the car out and learning lessons on track as we build the team rather than having set aspirations for on-track performance.

How much change do you expect in the infrastructure at Enstone?
Building up the many departments at Enstone is very much part of the current programme and we're interviewing for a lot of new positions. By the end of 2013 we were around 100 people fewer than we'd been before and the task now is recruiting the best people to strategically build the team through 2016. We also have access to more physical resources than before so we can fully deploy our departments as they exist now to enable full utilisation of the personnel we currently have.



Q&A with Rémi Taffin
Renault Sport Formula One Team Engine Technical Director

Rémi takes overall responsibility for the Renault power unit developed at the Viry-Châtillon site. Working closely with Nick Chester, Rémi ensures the team of engineers produce an optimised unit that works in perfect harmony with the chassis.

Remi joined Renault Sport in 1999, working across Renault's roll call of clients, including British American Racing, Arrows, Benetton and Renault F1 Team. He has worked directly with two World Champions, Jenson Button and Fernando Alonso, engineering the latter to victory in his two title-winning years.

Rémi stepped up to manage track activities with the creation of Renault Sport F1 in 2011, taking responsibility for the on-track engine performance of Renault Sport F1's partners. Attending all races and tests throughout the season, Rémi oversaw customer support for the Renault-powered teams and was instrumental in the four world titles secured by Red Bull Racing in the V8 era.

In 2015 he became Director of Operations, managing the teams of engineers and technicians in the dynos and assembly department at Viry and ensuring a smooth transition to track by overseeing the engineers integrated to Renault's partner teams.

How was the news that Renault would return to team ownership greeted at Viry-Châtillon?
Naturally, everyone was very enthusiastic about the news at Viry. After a long period of success in the V8 era, we didn't have a good 2014 and it took us until the midpoint of 2015 to get back on track and get our heads out of the water. In 2016 it feels like we can breathe again and look at where we are going. We know that this year will be hard, and everyone is fully expecting a challenge, but it feels good to have a long term plan and direction.

What are the principal changes to the Renault power unit this year?
If we look back to 2015, we introduced some new concepts late in the year with the 'Spec D' power unit. While we did not use all the concepts we developed at that point, the track test in Brazil gave us some very useful information. In particular we worked on the combustion chamber and the turbo to bring additional performance without sacrificing reliability.

> *"The power unit we will use in Melbourne is a continuation of the work we started last year and some add-ons push the concepts further. We also have some other areas we are working on so there will be further refinements coming throughout the season, but what we will see in Melbourne will already be a substantial step up from where we left off in 2015.* ***However, we have to look at 2016 as laying the foundations for 2017 when we expect the partnership to have matured.****"*

What are the realistic aims for this year?
We recognise that the work integrating our power unit to the chassis started very late and we are doing the best we can in very challenging circumstances so we are being realistic about results in 2016. We need to continue to provide a reliable and competitive power unit, but we also need to build strong and lasting links with the chassis team at Enstone. There are advantages in already knowing a lot of the personnel and their methodologies, but it will take time to get the best from each other. Ultimately, working well together will enable us to develop the power unit and chassis more quickly and efficiently, but that takes time.

Have you made any significant changes to Viry as a result of the decision to return to a works' team?
Whilst Enstone is being restarted, with Viry it is more about carrying our momentum forward. We haven't made any major operational changes since the announcement; it is more a case of putting things in order. We made significant investments for the start of the new PU regulations including new dynos, updated software and additional personnel. With a works team working with the same objectives and timeframes we can now take full advantage of those earlier investments. Renault is engaged for the long term with a solid platform and we can create equally long term strategies.

Renault R.S.16 Technical Specification

Chassis	Moulded carbon fibre and aluminium honeycomb composite monocoque, manufactured by Renault Sport Formula One Team and designed for maximum strength with minimum weight. Renault power unit installed as a fully-stressed member.
Front Suspension	Carbon fibre top and bottom wishbones operate an inboard rocker via a pushrod system. This is connected to a torsion bar and damper units which are mounted inside the front of the monocoque. Aluminium uprights and OZ machined magnesium wheels.
Rear Suspension	Carbon fibre top and bottom wishbones with pull rod operated torsion springs and transverse-mounted damper units mounted inside the gearbox casing. Aluminium uprights and OZ machined magnesium wheels.
Transmission	Eight-speed semi-automatic titanium gearbox with reverse gear. "Quickshift" system in operation to maximise speed of gearshifts.
Fuel System	Kevlar-reinforced rubber fuel cell by ATL.
Electrical	MES-Microsoft Standard Electronic Control Unit.
Braking System	Carbon discs and pads. Calipers by AP Racing.Master cylinders by AP Racing
Cockpit	Removable driver's seat made of anatomically formed carbon composite, with six-point harness seat belt. Steering wheel integrates gear change, clutch paddles, and rear wing adjuster.

Dimensions and Weight

Front Track	1450 mm
Rear Track	1400 mm
Overall Height	950 mm
Overall Width	1800 mm
Overall Weight	702kg, with driver and ballast

Renault Press

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Renault R.E.16 Technical Specification

Engine

Displacement	1.6L V6
Number of cylinders	6
Rev limit	15,000rpm
Pressure charging	Single turbocharger, unlimited boost pressure (typical 4 bar abs)
Permitted fuel quantity per race	100kg
Configuration	90° V6
Bore	80 mm
Stroke	53 mm
Crank height	90 mm
Number of valves	4 per cylinder, 24
Exhausts	Separated outlets for both turbine and wastegate on car centre line
Fuel	Direct fuel injection

Energy Recovery Systems

MGU-K rpm	Max 50,000rpm
MGU-K power	Max 120kW
Energy recovered by MGU-K	Max 2 MJ/lap
Energy released by MGU-K	Max 4 MJ/lap
MGU-H rpm	>100,000rpm
Energy recovered by MGU-H	Unlimited

General

Weight	Max 50,000rpm
Number of Power Units permitted per driver in 2016r	5* *drops to 4 if 20 GPs or fewer are included on calendar
Total horsepower	Approx 875hp

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03

Our Drivers

Jolyon Palmer
Race Driver #30

Jolyon Palmer makes his Formula 1 race debut for Renault Sport Formula One Team, after performing Third Driver duties for the previous Enstone iteration of Lotus F1 Team in 2015.

He rose to Formula 1 on the back of his 2014 championship-winning GP2 season, as he became the first British driver to win the F1 feeder series since Lewis Hamilton in 2006. Driving for the successful French team DAMS, the now 25-year-old set a new record for the greatest number of points scored in a season with 256 points. He qualified on the front row seven times, won four races (at Bahrain, Monaco, Monza and Sochi) and secured an additional eight podium placings to win the championship with three races to spare.

Prior to GP2, Jolyon enjoyed an outstanding season in the 2010 FIA Formula 2 Championship where he finished runner-up after dominating the first half of the campaign. He pushed eventual champion Dean Stoneman all the way until the final round of the season, scoring five wins, ten podiums and five pole positions.

Key Details

Date of birth	20 January 1991
Place of birth	Horsham, UK
Nationality	British
Official website	www.jolyonpalmer.com
Official Twitter feed	www.twitter.com/JolyonPalmer
Official Facebook page	www.facebook.com/jolyonpalmer

Q&A

How does it feel when you hear the title, Jolyon Palmer 2016 Renault Sport Formula One Team racing driver?
It sounds great! I can't wait to get started! It's been a long winter but a really useful one for getting prepared. I've been in Enstone a lot and training really hard. Later this month that I'll be back in the car in Barcelona; I couldn't be more ready.

How much of a difference is it from being a third driver in a private team to a race driver for a manufacturer team?
It's quite a change! It's a massively exciting project and it's superb to be involved from the very start. It was fantastic to be announced as a race driver for 2016, then the magnitude increased once it was confirmed that Renault had bought the team and is making a massive commitment for the future. Last year provided a really good grounding for me and we're now all at the start of a tremendous opportunity. To be a works driver for a fully-fledged manufacturer F1 team is everything I could dream of.

What have you seen change at Enstone in the recent weeks?
There was an immediate change in vibe around the factory and very rapidly all the machines were fired into action and materials started arriving. The mood in the factory is so positive and forward-looking; this is a team that's revitalised and going places again. It's going to be a transitional year, coming from a difficult end to 2015, so it's my task to do the best job possible as the team grows and develops through this season. The potential is immense.

What is your approach to the season?
To be as prepared as I can be and deal with the challenges as they arise. It's been good to have the winter break to get myself in a very good place mentally and physically. I'm focused on the job in hand.

> *"Once we've been able to experience the car out on track in testing we'll be able to plan our approach better, at the moment there are so many unknowns before the car turns a wheel. It's a new car, new engine and new owners. I just want to do my best and be happy with what I've done by the end of the year."*

Are you ready for a big increase in your workload?
I am and I wouldn't have it any other way! I'm a Formula 1 driver, so I'm looking forward to every element. Last year was more intense than I expected and I was able to see how busy the drivers were. It's not just on track, it's the travel to get there as well as the time at the factory and other events. Now being part of a works team – with dealerships all over the place – it's going to be really busy working with the Renault family and friends. The workload is part of a driver's life. I'm sure I'll see some interesting places and meet some lovely people over the course of the season. It'll be a busy year and hopefully a very good year.

What have you been doing in preparation?
My winter training's been really intense and really positive. When you're unable to drive the car it's good to be able to work on your fitness. Unfortunately I've had to contend with the British weather so I've done quite a bit inside in the gym! I'm a bit of a fair weather player, but I have been outside running when it stops raining!

Parlez-vous Francais?
I did do some French at A-level but I certainly will be brushing up on that! There's certainly going to be plenty of people to speak French with and we're all involved in this terrific project with great targets to achieve.

Key Dates

- **2015: Formula 1**
  Jolyon began his Formula 1 career with Lotus F1 Team, undergoing extensive free practice work alongside other Third Driver duties such as a simulator programme.

- **2011-2014: GP2 Series**
  Champion with four wins, eight podiums and a series record of 256 points and 19 consecutive points finishes in 2014 to round off his GP2 season in style. The Brit had made his GP2 debut back in 2011, scoring a top ten finish on his debut at Abu Dhabi and continued to score highly in his first year. The following year saw the Brit partner current Sauber driver Marcus Ericsson at the iSport International team. Electrical issues blighted his early season although a change of chassis fired Jolyon to a point-scoring sixth place in Monaco soon after before winning the following sprint race, also in the principality. 2013 proved a good precursor to his championship-winning season, grabbing the feature race victory in Hungary, dominating in Singapore and finishing seventh overall in the standings.

- **2009-2010: FIA Formula 2 Championship**
  Jolyon took a best finish of sixth in his first year, and began his second year with victory at Silverstone as he became the first British F2 winner since his father Jonathan at Mugello in 1983. He continued to impress and had the championship lead by the third round at Monza before eventually slipping to second behind Dean Stoneman.

- **2007-2008: Formula Palmer Audi**
  Jolyon finished 12th on his debut at Silverstone before improving to take wins at Brands Hatch and Oulton Park. A quad bike injury stopped him finishing his first season but he recovered to challenge for the title in 2008, eventually finishing third after winning at Spa and taking 11 podium finishes.

Kevin Magnussen
Race Driver #20

Kevin Magnussen sensationally scored a podium on his Formula 1 debut in 2014 with second in the Australian Grand Prix – becoming the first rookie to score a podium on their GP debut since Lewis Hamilton in 2007.

He joins Renault Sport Formula One Team hungry for success after a year without race action despite his strong rookie season. Previously, Kevin won the 2013 Formula Renault 3.5 championship with five wins and 13 podium finishes to beat rival Stoffel Vandoorne. In 2012 he took a podium in his 3.5 debut and in the previous season he finished second in British F3.

Key Details

Date of birth	5 October 1992
Place of birth	Roskilde, Denmark
Nationality	Danish
Official website	www.kevinmagnussen.com
Official Twitter feed	www.twitter.com/kevinmagnussen
Official Facebook page	tbc
Grands Prix contested	20
Podiums	1
Wins	0

Q&A

What does the return to Formula 1 with Renault Sport Formula One Team mean to you?
It's an incredible feeling and it means so much. It's not only a Formula 1 drive but it's a top drive. Renault Sport will be fighting for world championships in the future, it might have a build-up phase, but they're here to win and that's a goal I share. I can't believe I'm now a part of it.

How much of a rollercoaster has the last few years been for you?
It's been character building! I had a season in 2014 with McLaren and I felt it went quite well pitched against a past World Champion. To be replaced the following year was tough even if the line-up the team used was very strong. I had been racing every year since I was six so to sit to the side certainly wasn't part of my plan.

Do you have a point to prove on your Formula 1 race return?
Hopefully I'll prove many points. I'm extremely motivated after a whole year away. I've been sitting on the sideline during the races for so many weekends and I'm hungry to come back and prove my worth. I've raced my whole life and I'm extremely hungry and keen to get in a race car again and even more so with Renault Sport!

What have you done to ensure you were race-ready in case any opportunity came your way?
Without racing last year I actually had more time to train and I feel very fit because of that. I'm physically ready. I've not had a lot of time in a race car but the time I had, I felt good. I was always surprised at how quickly I re-adapted to driving after time out of the car. I was pretty much immediately on the pace when I tested the Porsche Le Mans car and I've been on it whenever I've been in an F1 car. I'm ready.

It's an exciting new project but there's a lot to be achieved in a short time; how can you aid this process?
I have a lot to give. I've been connected to a top Formula 1 team for five years and three of those were in Formula 1 in driving and testing capacities. Despite just one season racing, I've got good experience. I can't wait to get started at a great project such as a Renault factory team. I'm pleased to be a part of it.

What's your previous history with Renault?

I'm familiar with the brand as I've raced in the junior categories and was 2013 Formula Renault 3.5 champion. In my mind that's a nice connection to have and I remember my World Series by Renault time well and they were great experiences. I hope to add to those great experiences through 2016 and beyond.

Key Dates

- **2014-2015: Racing with McLaren**
  Kevin made the perfect start to his Formula 1 career, taking second in the Australian Grand Prix. He proved to be an able team-mate to 2009 World Champion Jenson Button, regularly scoring points throughout 2014. The arrival of Honda saw Kevin on the bench in favour of the two-time champion, Fernando Alonso.

- **2012-2013: Formula Renault 3.5**
  Kevin impressed by finishing in the top three in his first Formula Renault 3.5 race with Carlin in 2012. His rookie season saw three poles and a win at Spa on his way to seventh in the standings. In 2013, he sealed the title with DAMS and shook off strong competition from the likes of McLaren-Honda Third Driver Stoffel Vandoorne. The Dane finished his season with five wins and thirteen podium finishes and clinched the title in the final round at the Circuit de Barcelona-Catalunya.

- **2011: British Formula 3**
  A season long battle with current Sauber Formula 1 driver Felipe Nasr proved to be the highlight of the 2011 British Formula 3 championship. The pair were team-mates at leading single seater team Carlin, but Nasr was able to string together the results to resign Kevin to runner up in the championship ahead of the likes of Valtteri Bottas and Roberto Merhi.

- **2010: German Formula 3**
  Kevin left it late to secure third in the 2010 German Formula 3 championship after a season long battle with Stef Dusseldorp. Magnussen entered the final race two points ahead, before beating his rival in the last encounter to seal third and the Rookie Championship honours ahead of Daniel Abt and Felix Rosenqvist.

- **2009: Formula Renault 2.0**
  Balancing both the Formula Renault 2.0 categories of NEC and Eurocup, Kevin was able to star in both championships after picking up a win, as well as 12 podiums in 14 races before graduating into the World Series by Renault.

- **2008: Danish Formula Ford, ADAC Formel Masters**
  Following an impressive career in karting, the Danish driver moved into single seaters and made an immediate impact as he won the Danish Formula Ford championship in his home country. Not content with a solitary championship, he also raced six times in the ADAC Formel Masters.

Esteban Ocon
Third and Reserve Driver

Hot French talent Esteban Ocon returns to Enstone for 2016 as Renault Sport Formula One Team Third and Reserve Driver.

Previously part of the Lotus F1 Team Junior programme, Esteban had a year to remember in 2015, winning the GP3 championship after seeing off a challenge from Luca Ghiotto. Fourteen podiums including a run of nine second places showed remarkable consistency to take the crown.

In 2014 Esteban saw off Max Verstappen to take the FIA European Formula 3 Championship crown with that year ending in a Lotus F1 Team car at the end of season test. Subsequent runs for Force India have showcased his ability. The year before, he battled with Pierre Gasly and Oliver Rowland in Eurocup Formula Renault 2.0. Esteban joins Renault Sport, but remains part of the Mercedes-Benz junior programme.

Key Details

Date of birth	17 September 1996
Place of birth	Normandy, France
Nationality	French
Official website	www.esteban-ocon.com
Official Twitter feed	www.twitter.com/oconesteban
Official Facebook page	www.facebook.com/esteban.ocon

Q&A

How does it feel to be announced as Renault Sport Formula One Team's Third Driver?
I'm absolutely delighted to be part of Renault's return to Formula 1 as a works team. At the end of last year, I signed up for the long term as part of the Mercedes-Benz junior programme, and I'm very proud that I have now also been chosen to help the Renault Sport Formula One Team this year. Not just as a French driver with a French team, but also because I can build on what I started a few years ago with the guys and girls at Enstone.

What is your history with Enstone?
Part of my heart is in this corner of the countryside in England. I grew up there, and visited for the first time when I was still go-karting at 13 years old. It blew me away: the people, the technology, just incredible. I was part of the Enstone family in junior categories until the end of 2014 and even had my first Formula 1 race weekend experience with the team in Abu Dhabi that year. I know many people in the team and I've learned so much from them. I'm still a young guy – but we have a long history together.

What is your approach to the season ahead?
To learn as much as I can and soak up information like a sponge. To be ready to jump in the car any time. And to help the team wherever I can. This is an incredible opportunity for me and I want to be ready to take the next step!

Aside from your role with Renault Sport Formula One Team, what else will you be doing?
My career has been managed by Mercedes since the end of 2014 and I became a full Mercedes junior at the end of last season, after winning the GP3 Series. Even in my new role as third driver for Renault Sport Formula One Team, I remain a long term member of the Mercedes family, and I have to thank Mercedes and Renault for making this possible. There are some opportunities out there to race as well this season but nothing has been decided yet. It is an incredible opportunity to be guided and supported by Toto (Wolff) and Mercedes – and to have the honour of representing a brand like Renault in Formula 1.

Key Dates

- **2014-2015: GP3 series**
  A debut season in the GP3 series came with the championship crown after Esteban held off his nearest rival Luca Ghiotto. While only taking one race victory - a further two were revoked on technical issues - Esteban was a remarkably consistent podium scorer with fourteen finishes in the top three. Esteban was also a part of the Mercedes F1 driver development programme, and ran in testing for the Force India F1 Team.

- **2014: FIA European Formula 3 Championship**
  Max Verstappen was the only driver who could come close to Esteban in the European Formula 3 championship of 2014. After earning a drive with the leading Prema Powerteam outfit following the Macau Grand Prix, Esteban rose to the top of the standings in the first round and won the championship with a round spare. He picked up nine wins and a total of 21 podiums that season. His success earned him a test with the Lotus F1 Team in Abu Dhabi as well as a Race of Champions debut.

- **2012-2013: Formula Renault 2.0**
  Esteban made his single seater debut in 2012, taking part in Eurocup Formula Renault 2.0 with Koiranen Motorsport. He took four point scoring finishes in his first year, none more pleasing than a home podium at Le Castellet. Esteban combined this campaign with a Formula Renault 2.0 Alps part season, taking two podiums at the Red Bull Ring. For 2013, he switched to the ART Junior Team and took his first victory at favoured home circuit Le Castellet on his way to third in the standings.

04

Renault Sport Academy

Renault Sport Racing will continue Renault's rich heritage of developing young driver talent with the formation of the Renault Sport Academy, which is tasked with finding future Renault Sport Formula 1 World Champions.

The Renault Sport Academy will utilise Renault Sport Racing's various platforms and global motorsport structures in its quest to nurture new talent, involving the local Renault markets in seeking new drivers from their regions.

Four drivers are announced at the Academy's foundation; reigning Formula Renault 3.5 series champion Oliver Rowland and from the ranks of the 2015 Eurocup Formula Renault 2.0 and Formula Renault 2.0 Alps winner Jack Aitken, Formula Renault 2.0 NEC winner Louis Delétraz and second-placed Kevin Joerg.

The drivers will be supported by Renault Sport Racing in their 2016 racing campaigns with Rowland contesting GP2, Deletraz racing in the newly named Formula V8 3.5 Series and Aitken and Joerg racing in GP3. Each driver will have tailored targets to meet for their motorsport progression.

The Renault Sport Academy is designed to nurture a driver within the Renault Sport Racing environment. An immersion programme in Paris will educate the Academy members in Renault Sport Racing's core values and heritage. A thorough fitness schedule will include evaluations at Renault Sport Formula One Team's base at Enstone throughout the year in addition to pre-season and mid-season fitness camps. There will also be an internship at Enstone to understand how the Renault Sport Formula One Team operates. The programme will be managed by Mia Sharizman Ismail who has extensive motorsport experience including Formula 1, GP2, GP3 and numerous other categories.

Renault has an impressive record of finding the F1 stars of the future, with the likes of Robert Kubica, Lucas di Grassi, Pastor Maldonado, Heikki Kovalainen, Jérôme d'Ambrosio and Romain Grosjean being nurtured through previous Renault driver development programmes.

> *"Renault has a terrific heritage in motorsport and this is something we are committed to continuing in the future. The Renault Sport Academy enables us to not only develop new talent but also ally this to our local markets. This makes the process directly relevant in each country where Renault Sport is present and also gives us a larger catchment area to identify the drivers who will fly our flag at the highest echelons of motorsport in the future."*
>
> **Guillaume Boisseau** - Brands Director, Groupe Renault

Q&A with Frédéric Vasseur, Racing Director, Renault Sport Racing

What is the Renault Sport Academy?
The Renault Sport Academy is a programme that underlines the commitment of Renault Sport Racing to nurture young talent to develop the Formula 1 stars of the future. It's a comprehensive programme that encompasses all areas necessary for a young driver to flourish and achieve the very highest motorsport rewards.

What is the motivation of the Academy?
We want to develop the champions of the future. The motivation is not just altruistic; we want these drivers to become future Renault Sport Formula 1 World Champions and we are putting every tool at their disposal to achieve this aim. Ultimately we want the future Renault Sport Formula One Team driver line-up to be drawn from the ranks of the Renault Sport Academy.

What are the expectations of the drivers in the Academy?
We will be very clear with each individual driver about our expectations for their racing. We want to see the best results possible on track allied with development and improvement in every aspect of how the driver goes about their task. We want well-rounded individuals who can work as effectively and efficiently with their race engineers as they can with partners and sponsors.

Academy Drivers

Oliver Rowland

Age	23
Nationality	British
2015 season	Winner Formula Renault 3.5 Series
Wins	8
Podiums	13

Previous Championships

- **2015: 1st Formula Renault 3.5 series, Formula E, GP2**
- **2014: 4th Formula Renault 3.5 series**
- **2013: 2nd Eurocup Formula Renault 2.0, 4th Formula Renault 2.0 NEC**
- **2012: 3rd Eurocup Formula Renault 2.0**
- **2011: 2nd Formula Renault 2.0 UK, 1st Formula Renault 2.0 UK Finals (Winter Series)**
- **2010: 7th Formula Renault 2.0 UK Winter Series**

Oliver Rowland had a breakout season in 2015, starring in a long running championship battle with Matthieu Vaxiviere for the Formula Renault 3.5 Series title.

Rowland grabbed the honours with a round spare, and perfectly balanced his championship calendar with appearances in GP2, scoring points in the process. The British driver's climb up the motorsport ladder started with karting from the age of seven before making his car racing debut in 2010 in the Formula Renault 2.0 UK Winter Series.

He impressed in the early stages of his career, winning the McLaren Autosport BRDC award in 2011 and subsequently earned his first taste of Formula 1 in a McLaren F1 car.

Two years in Formula Renault 3.5 Series landed him the title last year, and the Brit even found time to make his Formula E debut.

Rowland's stunning year will see him enter GP2 with backing from Renault Sport Academy.

Q&A

What is your reaction to being announced as a Renault Sport Academy member?
It's a great honour to be a part of the academy programme. Many drivers have benefitted hugely from Renault's previous academies and I intend to take this opportunity with both hands. I'm delighted to be part of the next generation and I'm proud that Renault Sport Racing believe in my abilities. I intend to repay them fully in terms of performance and hopefully throughout my career.

How do you think membership of the Academy will benefit you?
I think with Renault Sport coming back into Formula 1 as a team, helping them grow and hopefully winning world titles with them has to be the long term target.

> *"There will be a lot of benefits throughout this process that will hopefully help me grow as an individual and a racing driver. Fitness, mental preparation and a general understanding of how a Formula 1 team works I think will be an important part of the process."*

What does Renault in Formula 1 mean to you?
I remember when I was 13 or 14 Fernando Alonso was winning his two world titles with Renault; that was a big part of my childhood, so I think it's a big boost for Formula 1 in terms of manufacturer strength. Renault has been missed in Formula 1 for a while now. It's great that they are coming back with 100% commitment to chasing world titles in the future.

Does joining Renault give you a boost and more motivation?

Absolutely, to have the help and guidance of any Formula 1 team is a big boost, but to me it's extra special because I have been a part of the Renault family from day one. Throughout my five years in single seaters I have only ever driven in Renault's junior series. So for them to recognise and support me in 2016 is fantastic.

Jack Aitken

Age	20
Nationality	British/Korean
2015 season	Winner Formula Renault 2.0 Alps, Winner ProMazda Wintercup
Wins	12
Podiums	17

Previous Championships

- **2015: Winner, Formula Renault 2.0 Alps, 1st Eurocup Formula Renault 2.0, 1st Pro Mazda Winterfest**
- **2014: 7th Eurocup Formula Renault 2.0**
- **2013: 2nd Formula Renault 2.0 NEC**
- **2012: 3rd Dunlop InterSteps Championship, 2nd Formula Renault BARC Winter Series**

Few drivers can claim to have had a year as successful as Jack Aitken enjoyed in 2015.

A triple title winner, Aitken battled hard to become the Eurocup Formula Renault 2.0 winner, and also take the championship in the Pro Mazda Winterfest by a single point.

To round off a storming 2015, the youngster also claimed his third championship by roaring to the Formula Renault 2.0 Alps championship. All the more impressive for Aitken was a fractured back could only stop him racing for two weeks.

Aitken's career started in karts at the age of seven, before moving to cars in the Formula Renault BARC Winter Series four years ago.

Success came quickly, Aitken was a runner up in the Formula Renault 2.0 NEC in 2013 before a campaign in Eurocup Formula Renault 2.0 preceded his triple title year. He is also one of the few UK nationals to hold a Karate Black Belt Second Dan.

Q&A

What does it mean to be involved in the Renault Sport Academy?
It means an awful lot. To be selected for a Formula 1 junior programme is an aspiration for all young drivers as it is huge to have that first connection to Formula 1. After meeting those involved with the academy, I'm all the more excited.

What are you hoping to gain from your involvement in the Academy?
Renault knows Formula 1 inside out. They know how to treat a driver and how to help him or her improve. I'm looking forward to the pressures such a role will bring. It's a results driven sport and it's good to have that pressure on you to succeed.

How much of a boost has the role given you?
It's a massive boost. I remember what the Renault programme did in the past for drivers and I've seen it in action. It means I'll be backed and well supported and I'll learn a lot.

What are your plans for 2016?
I'll be in GP3 this year and it looks set to be one of the most competitive seasons in recent years. I'm aiming to win races and I'm in a good place to do that. It's too early to predict a championship, but we hope to be in a good position come the end of the season.

Louis Delétraz

Age	18
Nationality	Swiss
2015 season	2nd Eurocup Formula Renault 2.0, 1st Formula Renault 2.0 NEC, Formula Renault 3.5 series
Wins	12
Podiums	17

Previous Championships

- **2015: 2nd Eurocup Formula Renault 2.0, 1st Formula Renault 2.0 NEC, Formula Renault 3.5 series**
- **2014: 2nd Formula Renault 2.0 NEC, Eurocup Formula Renault 2.0**
- **2013: 19th Formula Renault 2.0 NEC**
- **2012: Formula BMW Talent Cup**

Son of former Formula 1 and Le Mans driver Jean-Denis Delétraz, Louis has begun to make a name for himself in motorsport after finishing second in the 2015 Eurocup Formula Renault 2.0 season.

Delétraz began karting when he was 10 years old, and quickly proved to be a talent after several championship wins.

His early success meant Delétraz moved into Formula BMW for his car racing debut in 2012 before quickly moving into Formula Renault 2.0 NEC the following year.

Delétraz proved to be a race winner early on and in 2015 he combined his Formula Renault 2.0 NEC campaign with the Eurocup Formula Renault 2.0 series.

The Swiss balanced the two expertly, winning the title in the Formula Renault 2.0 NEC championship and finishing second in Eurocup Formula Renault 2.0 last year.

Q&A

What does it mean to be involved with a brand as illustrious as Renault so early in your career?
It's a huge thing to be a part of! Renault has great experience in the sport and achieved a great deal in over 40 years of Formula 1. It's absolutely amazing to be involved and a part of the Academy, it makes me happy and also proud to be here. It's an enormous chance for me here and I'm intent on making the most of it.

What are you hoping to gain from the Academy experience?
Driving in the Eurocup Formula Renault 2.0 last year meant I was close to Renault and I got a real insight into what they're all about. I've had some great moments in my career in their championships and having seen them at work first hand, I'm looking forward to working with them in a Formula 1 environment. This will be a huge opportunity for my future.

Does it give you a boost to be named as a member of the Renault Sport Academy?
It's a massive boost for me. Formula 1 is my dream and to get there you need the help of a Formula 1 team. So to be given this chance by Renault is hugely important and it's made me all the more motivated to succeed.

The 2016 season is around the corner, what are your expectations?
I'll be racing in Formula V8 3.5 Series this year and it'll help me massively as, despite the name change, it's still a Renault chassis and engine. It'll also be my first year in a car that laps close to Formula 1 so that means it'll be a good learning curve too. I'm going to be racing with Fortec Motorsport and they won the championship last year with fellow academy member Oliver Rowland. I'll have a winning car, so it's up to me to win now.

Kevin Joerg

Age	20
Nationality	Swiss
2015 season	2nd Formula Renault 2.0 NEC, 3rd Eurocup Formula Renault 2.0
Wins	3
Podiums	17

Previous Championships

- **2015: 2nd Formula Renault 2.0 NEC, 3rd Eurocup Formula Renault 2.0**
- **2014: 6th Eurocup Formula Renault 2.0, 13th Formula Renault 2.0 NEC**
- **2013: 4th Formula Renault 2.0 Alps, Eurocup Formula Renault 2.0**
- **2012: 6th Formula Abarth**
- **2011: 4th BMW Talent Cup**

Kevin Joerg burst onto the scene in 2015, marking his Formula Renault 2.0 NEC and Eurocup Formula Renault 2.0 with second and third in the series respectively.

The Swiss youngster was a talented karter in his childhood, moving into Formula BMW and Formula Abarth in quick succession.

2013 saw Joerg participate in the GP3 Young Driver Test before campaigns in Formula Renault 2.0 Alps and Formula Renault 2.0 NEC.

Q&A

How does it feel to be announced as a member of the Renault Sport Academy?
It's a great feeling. To know that if I do well I have a chance at Formula 1 is incredible. It's a life changing opportunity. I'm so happy to be here, and I'm looking forward to the future already. The programme at the academy looks so promising as Renault is such a huge brand. To be selected is a huge honour and the future possibilities are great.

What do you think the Academy will help you achieve?
It's truly great support for my season ahead, when you factor in all the fitness and other areas Renault Sport want us to improve on. The programme will help me in the long term and that makes the future look all the brighter.

Renault have a great history of developing talents, does that make it all the more important to you?
It's a special programme for sure with Renault Sport. The names that have gone through their development are very impressive. Good drivers have gone onto good careers thanks to Renault and it's another part of a great history.

05

Renault Sport Formula One Team within the Renault-Nissan Alliance

One of the core strengths of the Renault-Nissan Alliance is its capacity to create powerful industrial synergies in multiple areas such as R&D and production.

From 2016 onwards, that approach will be mirrored in motorsport activities, with Alliance premium brand Infiniti joining Renault Sport Formula One Team as an active technical partner.

Infiniti enjoyed five years of successful sponsorship with Red Bull Racing, which was initiated through the Alliance partnership with the Anglo-Austrian team. Infiniti significantly increased its brand awareness over this period. With all targets met, Infiniti decided the time was right to take a step forward in the sport on a technical level.

Infiniti will use its expertise in hybrid technology and make a genuine contribution to the R.E.16 F1 Power Unit's Energy Recovery System (ERS), which incorporates two motor generator units, the MGU-H and MGU-K, and a battery.

The MGU-K (K for kinetic) is connected to the crankshaft of the internal combustion engine. Under braking, the MGU-K operates as a generator, recovering some of the kinetic energy dissipated during braking. It converts this into electricity for a boost equivalent to 120 kW or 160 bhp that can be deployed throughout the lap.

Acting as a generator, the MGU-H (H for heat) absorbs power from the turbine shaft to convert heat energy from the exhaust gases. The electrical energy can be either directed to the MGU-K or to the battery for storage for later use.

Infiniti has an excellent reputation for performance hybrid vehicles. The hybrid system in the Q70 has been recognized in the Guinness Book of World Records as the fastest hybrid over a quarter mile and the Infiniti Q50 uses the same system. This strong and valuable expertise will be put to good use by the team in Viry-Châtillon as a team of Infiniti hybrid specialists move from Japan to France in 2016 to support development.

The partnership is based on a solid five year plan. Production car engineers will collaborate with F1 specialists, thus enabling the benefits to cross pollinate to Infiniti's road car portfolio. In parallel, Infiniti markets will continue to have access to Formula 1 for marketing activities.

Tommaso Volpe, Infiniti Motorsport Global Director, commented: 'During our five years of sponsorship with Red Bull Racing, we achieved all our targets in terms of brand awareness. As an automotive company, the next step was to strengthen our credibility by becoming an active player within Formula 1. The creation of the Renault Sport Formula One Team with our Alliance partner Renault gives us an ideal opportunity to make this natural evolution from sponsor to technical partner.

> *"Infiniti will have a direct input to the Energy Recovery System in the Renault Sport Formula One Team. Our know-how will benefit the team on track, but we will also learn a great deal in the extreme environment of F1 that we will be able to transfer back to our road car portfolio."*

'Our first target is to increase technical credibility supporting Renault Sport with our valuable expertise in hybrid technology, the second objective is to increase excitement and engagement for our customers, dealers and employees. The news has already been greeted with enormous enthusiasm within the company, which is critical in supporting our core business.'

Renault Sport Formula One Team Partners

- **Bell & Ross** is a watchmaker specialized in aeronautical instrumentation.

  Bell & Ross has a mission: to invent, design and manufacture exclusive and perfectly functional timepieces for professionals working under extreme conditions.

  In its La Chaux-de-Fonds manufacture based in Switzerland, Bell & Ross perpetuates the Swiss art of luxury watchmaking.

  The story of Bell & Ross began at the end of the 20th century and the brand is now an international company based in 70 countries through a selected network of more than 800 retailers and 15 exclusive boutiques.

- **Devialet**, Ingénierie Acoustique de France, was founded in 2007 by the engineer Pierre-Emmanuel Calmel after his revolutionary discovery that changed sound amplification: the ADH Intelligence. This first invention made the hybridization of the digital and analog technologies possible for a sound with an unrivalled quality.

  With Quentin Sannié, visionary entrepreneur, and Emmanuel Nardin, designer of the excellence, they shaped a triplet that leads Devialet towards global success. Leader in high-end audio systems, and most acclaimed start up for its premium innovations in the field of sound, Devialet is about to launch a new technological prowess that is going to change everything…

  Among its investors, Devialet can count on Bernard Arnault, Marc Simoncini, Xavier Niel and Jacques-Antoine Granjon.

- **EMC** is a global leader in enabling businesses and service providers to transform their operations and deliver information technology as a service (ITaaS). Fundamental to this transformation is cloud computing, helping IT departments to store, manage, protect and analyse their most valuable asset – information – in a more agile, trusted and cost-efficient way. In 2013, the Enstone team turned to EMC for a complete overhaul of its IT infrastructure– both trackside and at its Enstone, UK, headquarters. The change was necessary to meet its next wave of technological and competitive challenges.

  The 4-year partnership with EMC was created to spearhead the Team's development program and saw Lotus F1 Team adopt a range of EMC's private cloud technologies, enabling more agile and cost-efficient storage, management and protection of information.

- **Genii Capital** is an investment management and financial advisory firm, operating within the Finance division of The Genii Group. It currently holds a minority stake in the Renault Sport Formula One Team, having previously owned and controlled the team between 2010 – 2015. During this time the team achieved some exceptional results, beating Mercedes and McLaren in 2012 and 2013 season respectively; earning the reputation of the leading non-backed OEM team.

  Today, Genii Capital can still rely on its relationship with the team to interact with market leaders, opinion leaders, high network individuals, political leaders, key global corporate finance players and global players in the Formula 1 community. Utilising this dynamic business environment, Genii Capital continues to support the team whilst initiating positive dialogue with the appropriate counterparties in support of Genii's core competencies and involvement across: technology; automotive; energy and real-estate sectors.

- **Infiniti Motor Company Ltd**. is headquartered in Hong Kong with sales operations in over 50 countries. The Infiniti brand was launched in 1989. Its range of premium automobiles is currently built in manufacturing facilities in Japan, the United States, United Kingdom and China. Infiniti plans to also expand manufacturing into Mexico by 2017.

  Infiniti design studios are located in Atsugi-Shi, near Yokohama, London, San Diego and Beijing.

  Infiniti is in the middle of a major product offensive. The brand has been widely acclaimed for its iconic design and innovative driver-assistance technologies.

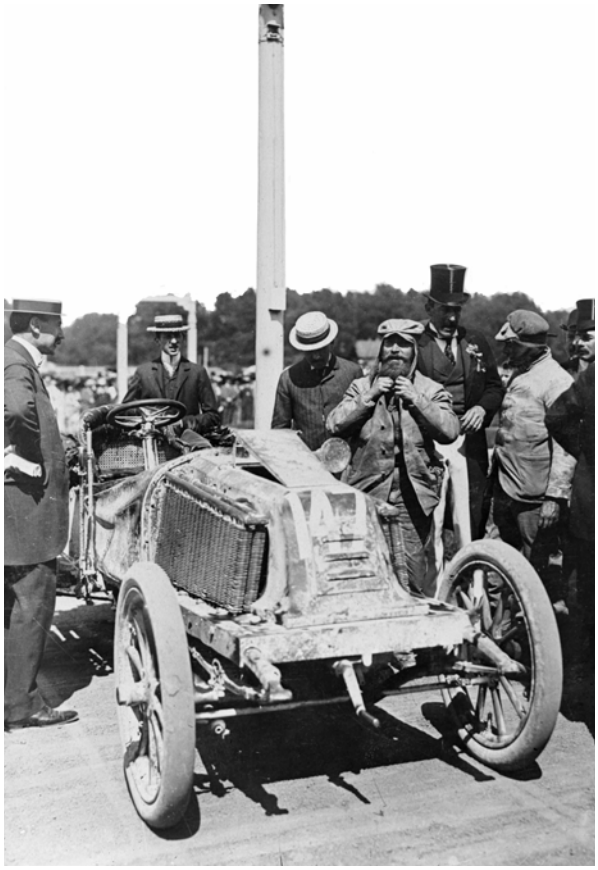
- **Microsoft.** At the heart of every successful business are the people who make things happen. Microsoft Dynamics designs modern business solutions that empower individuals with intuitive tools that allow them to do their best work. Our proactive, easy-to-use business applications adapt to the way people and systems work, enabling businesses to rapidly deploy and be forward-looking in an ever-changing world.

- **Total** is a global integrated energy producer and provider, a leading international oil and gas company, and the world's second-ranked solar energy operator with SunPower. Our 100,000 employees are committed to better energy that is safer, cleaner, more efficient, more innovative and accessible to as many people as possible. As a responsible corporate citizen, we focus on ensuring that our operations in more than 130 countries worldwide consistently deliver economic, social and environmental benefits.

06

Renault:
115 Years of Motorsport Success

Renault has long understood the value of motorsport to its brand.

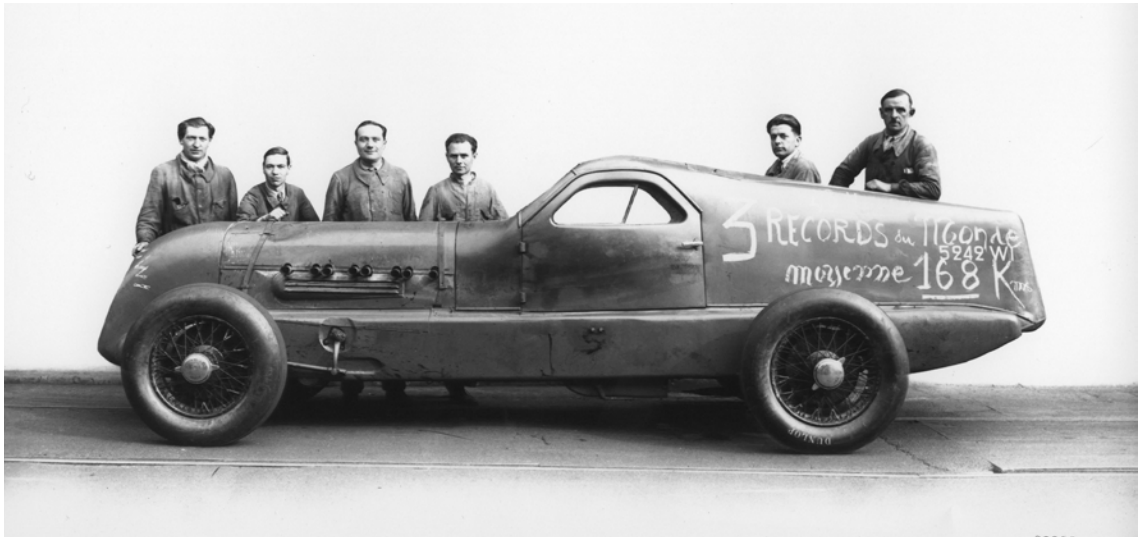


Renault's first major motorsport victory came in the 1902 Paris-Vienna race at the hands of Marcel Renault. Three Type K lightweight cars were entered alongside four smaller voiturettes to do battle against the likes of Count Zborowski's powerful Mercedes and Henry Farman's Panhard. The event took place on steep, twisting roads, including a tough Alpine crossing. Marcel Renault's victory was at an average speed of 62.5km/h and from that point on, Renault would be a very serious contender in motorsport at all levels.

In 1906 Renault entered the first-ever Grand Prix, held over two days on public roads outside Le Mans. Renault participated with its Type AK, a lightweight chassis fitted with a 12.9-litre four-cylinder engine. In spite of searing temperatures, a track that almost melted and more than 12 hours of racing, Hungarian Ferenç Szisz won the race for Renault. Victory contributed to an increase in sales for the French manufacturer in the years following the race.

The Jazz Age and Land Speed Records

In the 1920s and 30s, Renault focused on rallying and the Land Speed record. In 1925 Renault won the Monte-Carlo Rally. Then in 1926 the 9.0 litre Renault 40CV Type NM des records was developed for speed trials, complete with a single seat, streamlined coupe bodywork and exposed wheels. It went on to achieve a 24-hour average of 107.9mph – significant speeds for a production-based car of the day.



The Nerva Series

In the 30s Renault developed the Nerva Series and continued with numerous speed record attempts on the roads of Europe and Africa. Powered by Renault's second 8-cylinder in-line unit and inspired by aviation engineering developments, the Nervasport finished second in the 1932 Monte-Carlo Rally, just two tenths of a second behind the winner. Victory came in the 1935 Monte-Carlo Rally, the 1935 Liège-Rome-Liège race and second place, behind Bugatti, was achieved in the Morocco Rally too.

But the car turned in its most spectacular performance at the speed ring in Montlhéry. In April 1934, a specially prepared Nervasport won several endurance records in all categories. It covered more than 8,000km in 48 hours, an average of over 100mph with a top speed of close to 125mph.The highly dynamic single-seater body would influence the design of future Renault vehicles.

Shooting Stars in the 1950s

Renault recaptured the pioneering spirit of its early days in the 1950s with further attempts on the Land Speed record. After two years of wind-tunnel testing, in September 1956 Renault took the striking blue Étoile Filante (Shooting Star) to the Bonneville Salt Flats in Utah, USA. The outstanding vehicle featured a tubular, polyester-clad body and two large aircraft-like fins. It was propelled by an innovative turbine engine developing 270 hp at 28,000rpm and was equipped with the Transfluide transmission. In a nod to the aeronautics sector, it ran on kerosene and was practically vibration-free thanks to the rotation speed of the turbines. On its first run on solid ground, its developer Jean Hébert set a new land speed record, peaking at 308.85km/h.

Renault followed this remarkable speed achievement with further rallying success. It entered the petite and innovative rear-engined Dauphine in numerous events, including the Mille Miglia. It took the first four places in the 1956 event and won the Tour de Corse the same year. Two years later a Dauphine won the epic Monte-Carlo Rally.

The start of the Gordini partnership

In the early 60s a sportier, high-performance version of the Dauphine was produced by Amédée Gordini, who had also created Grand Prix cars under his own name. The Renault-Gordini partnership proved to be highly successful, with the classic R8 Gordini, R12 and R17 appearing in subsequent years. The R8 Gordini in particular excelled in rallies, hill-climb and racetrack meetings and proved so immensely popular that the Renault 8 Gordini Cup, a programme widely considered to be the forerunner of brand-specific championships, was created in 1966. The Renault 12 Gordini engine also powered the first Formula Renault cars, with the first Formula Renault French championship held in 1971. Many eminent drivers and champions have since cut their teeth in the formula, including Jacques Laffite; Jean Ragnotti, Alain Prost, Sebastian Vettel, Kimi Raikkonen and Lewis Hamilton.

Gordini's facilities in Paris proved to be too small for the ambitious activities, so a new building outside the city was sought. The ideal location was found at Viry-Châtillon. The Gordini facility was inaugurated on 6 February 1969, and it was to be the launch pad for significant and lasting motor sporting success over the following decades.

The initial focus was on a new 2-litre V6 engine, which was officially launched in January 1973. The engine soon proved to be competitive in the prestigious European 2-litre sportscar series. That was followed by a move into the FIA World Sportscar Championship with a turbocharged version of the engine.

Renault Sport was founded in 1976, and that year saw the birth of a parallel single-seater programme with the V6 engine in European F2.

Le Mans success and F1 debut

In sportscars the turbocharged Renaults proved to be incredibly fast, securing a string of poles and fastest laps. Everything came together in 1978 when Didier Pironi and Jean-Pierre Jaussaud scored a historic victory in an Alpine-Renault A442B powered by Renault's turbocharged V6 engine. Another Renault came home fourth. With Le Mans success finally secured, Renault could now focus on its other goal – Formula 1.

The option to run a turbocharged engine had been in the rules for many years, but nobody had dared to pursue it until Renault. It had quietly begun track testing with a 1.5-litre version of the turbo engine in 1976, and a short programme of races was scheduled for the following year.

The V6 turbocharged RS01 made its debut in the 1977 British GP in the hands of Jean-Pierre Jabouille. Nicknamed the 'Yellow Teapot,' the car retired from its first race, but not before it had made a big impression. Four further outings at the end of the year provided more valuable experience. The education process continued through 1978 until Jabouille earned the first points for Renault – and for any turbo engine – with fourth place in the US GP. A move to a twin-turbo set-up for the 1979 Monaco GP was one of the big breakthroughs. The team had finally begun to conquer the critical problem of turbo lag, and Jabouille duly scored the marque's historical first win on home ground in Dijon, having started from pole.

Rallying to victory

In parallel, Renault remained committed to rallying. It won the manufacturer's title in the 1973 World Rally Championship, before Guy Fréquelin won the 1977 French Rally Championship with the Alpine A310 Group 5. The Renault 5 Alpine garnered further fame with Jean Ragnotti, who finished second in the 1978 Monte-Carlo Rally. Ragnotti then piloted the Renault 5 Turbo to victory in the 1981 Monte-Carlo Rally and the 1985 Tour de Corse.

Renault also ventured into rallye raids with the Paris-Dakar Rally and a privately-entered Renault 20 driven by the Marreau brothers won the 1982 edition through the deserts of Africa.

In parallel, Renault's F1 involvement began to pay dividends as it finished second in the 1983 World Championship with Alain Prost. The Frenchman had taken four wins to champion Piquet's three, but missed the title by just two points. The same year Renault became an engine supplier for the first time, joining forces with Lotus. Supply deals were also extended to the Ligier and Tyrrell teams in subsequent seasons. In Portugal 1985 Ayrton Senna scored his first-ever GP victory with Renault power, and the Brazilian proved to be one of the stars of the season.

The works outfit was closed at the end of 1985 with focus instead directed at supplying engines to other teams. Indeed in 1986 the Senna/Lotus/Renault combination proved to the fastest on the grid, as the Brazilian took eight poles.

F1 success beckons

Renault officially returned to Formula 1 in the late eighties, but this time as an engine partner to the Williams team. In its first year of competition the new partnership won two Grands Prix, and two further wins followed in 1990. Nigel Mansell – who had used Renault power at Lotus – joined the team.

It was the start of an incredible era. By the end of 1991 the combination was the one to beat, and in 1992 Mansell proved so dominant that he secured Renault's first World Championship by August.

Former works Renault driver Alain Prost joined Williams in 1993, and he too won the title before retiring. Further championships followed for Damon Hill in 1996 and for Jacques Villeneuve in 1997. Williams-Renault also won the Constructors' title in 1992, 1993, 1994, 1996 and 1997.

In 1995 Renault expanded its involvement with new collaboration with the Benetton team. Michael Schumacher won the championship in 1995, while Benetton won the Constructors' title ensuring that with its two partners Renault scored six straight title successes between 1992 and 1997. Between 1995 and 1997 Renault engines won 74% of Grands Prix.

Renault officially departed Formula 1 at the end of 1997. Williams, Benetton and later the new BAR team used Renault-based engines under the Supertec, Mecachrome and Playlife names, and work continued in a small development project at Viry.

Renault simultaneously continued its rally involvement throughout the nineties and the Maxi Mégane was driven to victory in the Tour de Corse in 1997.

An F1 return

Again, Renault's official absence from F1 was to be a short one. In early 2001 it was announced that the company had bought the Benetton team, and was to return in a full works capacity. The Renault name returned as Benetton's engine supplier that season, and then in 2002 the team was reborn as Renault F1 Team, with the chassis department still based at Enstone, UK, while working closely with the engine division in Viry.

In 2003 Fernando Alonso gave the new team its first pole in Malaysia, and then the young Spaniard followed up with his and the team's first win in Hungary. The following year Jarno Trulli gave Renault victory in the most prestigious race of the year in Monaco.

In 2005 Alonso was the man to beat as he won the Drivers' title and Renault took the Constructors' version with eight wins between Alonso and team-mate Giancarlo Fisichella.

Despite the huge change from V10 to V8 technology for 2006, the Renault F1 Team was able to sustain its momentum. A further eight wins over the season saw Renault fighting with Ferrari for both titles, but Renault's innovation again proved victorious as it again captured both the Drivers' and Constructors' titles.

Supplying other teams had long been a Renault policy, and in 2007 a new partnership was formed with Red Bull Racing. The dark blue cars soon moved up the grid, and in 2010 Vettel emerged triumphant as the youngest champion in the history of the sport, while Red Bull-Renault earned the Constructors' championship.

As Renault refocused its activities around engine supply, Vettel proved unstoppable in the World Championship, breaking all the records as he secured consecutive titles in 2011, 2012 and 2013.

Alongside Red Bull Racing, Renault supplied Lotus F1 Team, Caterham F1 Team and Williams F1 Team. Throughout the era, the V8 engine developed by 250 engineers at Viry-Châtillon dominated, taking over 40% of the available wins and a record number of pole positions.

Away from F1

Renault Sport Technologies continued to develop its range of single-make championships with Formula Renault 2000 and the Clio Cup. And the Clio Super 1600 enjoyed strong success on the rally circuit, winning several international titles between 2003 and 2005.

The 2005 season brought the creation of the World Series by Renault, following a merger between Eurocup Formula Renault V6 and the World Series by Nissan. Free to the public World Series by Renault meetings combined top-class competition with on-track F1 shows and family entertainment for 11 years. The series was also a springboard for most of the stars in the current F1 field.

The start of a new adventure

In 2014, Formula 1 welcomed a radical new wave of technology with the introduction of avant-garde powertrain technology. The new Renault F1 power unit revisited a previous engine generation's turbocharged architecture but combined it with powerful electric motors and an array of advanced energy-recovering devices that cut fuel consumption by 40% year on year while delivering comparable levels of performance and acceleration.

Renault continued to supply Red Bull Racing, sister team Scuderia Toro Rosso as well as Lotus F1 Team, but the era proved hard fought. A rethink of the corporate strategy was required, and at the end of 2015 Renault announced it would return to team ownership.

From 2016, the Renault name will once again race in F1, this time under the Renault Sport Formula One Team banner.

The aim is not only to pay homage to the success of the past, but to re-energise multiple platforms within Renault. It is clear that the rich and long heritage of Renault will serve as inspiration and motivation for the teams of the present day.

Renault's Motorsport Activities

Formula E

The FIA's first fully electric racing championship is staged in city centres around the world. In its continuing role as a trailblazer, Renault is making the most of this global showcase to put the spotlight on its know-how in electrical technology.

A standard bearer of all-electric driving with the Z.E. (zero emissions) range and a key player in motorsport, Renault is playing its part in the emergence of a new type of motor racing that is more accessible and contributes to the development of electro mobility.

Renault rose to the latest challenge in winning the maiden FIA Formula E Championship in 2014/15 with the Renault e.dams team and redoubles its commitment in the second season of competition by building its own engine/gearbox assembly and developing cutting-edge technologies that will both directly and indirectly benefit the production vehicles in the Z.E. range.

Formula Renault 2.0

Sometimes as young as 16, the drivers in the Formula Renault 2.0 fields are confronted with an extremely competitive environment in which they will learn the basics of their trade: how to handle the pressure of competition while getting the most out of their single seater. The 2.0L, 16V, 210 hp single seater engine has been hooked up to a paddle operated seven speed sequential gearbox.

The old adage that you need a season to learn and another to win seems to be a thing of the past. The average age of drivers breaking into Formula 1 has fallen considerably in the last few years, with the result that the apprenticeships they serve on the way up have also become shorter. Created more than 45 years ago, Formula Renault has since developed in response to the needs of drivers hailing from karting and entry-level series.

Something of a single seater academy, Formula Renault 2.0 gives drivers every opportunity to demonstrate their talents.

Renault Sport R.S.01

Renault is restating its passion for motor sports with the Renault Sport R.S.01, a racing car of spectacular styling and exceptional performance. With a design inspired by the world of concept cars and governed by an absolute pursuit of aerodynamic downforce, Renault Sport R.S.01 is a radical expression of the brand's sporting DNA.

Its technical specifications reflect the best of Renault Sport expertise. With a carbon monocoque chassis for a weight of 1,150 kg and an engine developing 550 hp, it is able to reach a top speed of over 300 kph. From 2015, Renault Sport R.S.01 is the star of a new championship, the Renault Sport Trophy, a springboard for the professional GT and Endurance championships.

Renault Clio Cup

Fans love to see cars racing side by side, which is just what they get with the Clio Cups.

Following the launch of the legendary Coupe R8 Gordini in 1966, Renault Sport has continued its presence on the racetracks of Europe and the rest of the world. Sold by the hundreds since 1991, the four generations of the Clio Cup were recognized for their performance, reliability and accessibility.

Eight national Clio Cup series will be held in 2016: France, UK, Spain, Italy, Benelux, Nordic, Central Europe and China.

Clio Cup has all the attributes of the Clio R.S. 200 EDC. The 1.6L direct injected turbo engine delivers 220 hp and a constant torque of 270Nm and is hooked up to a sequential gearbox with steering wheel-mounted paddle shifts.

Renault Clio R3T Trophy

In 2016 a new format will allow competitors to compete for a national trophy in four European areas; France, Alps, Italy and Iberia.

In addition to the technical support available to every customer, the Clio R3T Trophy will provide the winner of each Trophy with a 2017 Monte Carlo WRC3 drive.

Clio R3T shows off its assets with exclusive front and rear suspension systems. Featuring new adjustable bumpers and a wide range of settings, every driver is able to find the balance needed to be competitive on all surfaces.

Clio R.S. 200 EDC's 1.6-litre turbo-charged engine has been given special treatment to deliver unrivalled performances. The engine block now develops 242 hp and delivers 480Nm of torque. The six-speed sequential gearbox can be controlled by steering wheel-mounted paddles (upcoming option).

WRC3 World Rally Championship

The objective: to win the 2016 WRC3 World Rally Championship title.

After a first season with the Crugnola/Ferrara crew, Renault Sport will enter as an official team with Michael Burri/Anderson Levratti, winners of the 2015 Clio R3T European Trophy.

Renault Sport Cars

Bringing Motorsport Technology To The Roads

Q&A with Patrice Ratti

Patrice became Managing Director of the former iteration of Renault Sport Cars in 2010.

After studying engineering in France and the USA, he started his career at Renault Sport in 1981 as an engineer with the F1 team. He then became Chassis Development Manager and Chief Race Engineer of the team.

After joining the Safrane engineering team and managing the Espace project, Patrice moved to create Renault Mexico and become its Managing Director. Subsequently he led Renault Portugal and Renault Morocco before taking his position as head of Renault Sport Technologies at the end of 2010.

Why is motorsport critical in developing the Renault Sport brand ?
It is relevant to talk about motorsport being a laboratory to develop production vehicles. At Renault Sport we put this into practice every day, not only by adapting technologies developed for motorsport, but also using working methods and processes. Two examples of this are the rear diffuser of our R.S. cars, which is inspired by F1 aerodynamics and the hydraulic bump stops that stem from rallying technology. The work we put in to develop the circuit and rally versions of the Clio greatly helped us in the development of the Clio R.S.

How will the new commitment to F1 help you develop the Renault Sport range?
This new chapter demonstrates first and foremost the competitive mindset that drives Renault Sport: we seek challenges and give all our energy to overcome them! The technical benefits lend themselves to boosting awareness of the Renault Sport range and will be filtered into future, exciting new cars. F1 is the pinnacle of technology so no doubt there will be an impact on our future range.

How will Renault Sport Cars boost Renault's image?
Renault Sport cars are the bridge between Renault motorsport and volume road cars. They fully exploit the potential of the Renault cars. For example, the Mégane R.S. Trophy broke the record for Nürburgring Nordschleife, not just due to our know-how derived from motorsport, but because the basic Mégane is a very good car! Our customers are great ambassadors, and understand the full performance and handling of the cars.

Renault Sport Cars Range

Renault's strategy to develop Renault Sport both on the track and on the road boosts our core activity of developing and selling sport cars. From now on Renault Sport Technologies will concentrate on that job, which leads us to our new name: Renault Sport Cars.

Between 2014 and 2018 our plan is to double the R&D and sales volumes. We have already started to expand internationally with Sandero R.S. 2.0 manufactured in Latin America and are working on several projects to extend our portfolio in both Europe and outside. We will draw on our expertise derived from applying racing know-how to our hot hatches and will work with Renault Sport Racing to develop new bridges between motorsport and sport cars.

Patrice Ratti - Renault Sport Cars Managing Director

The Renault Sport Cars range offers a three level structure to cover most customer needs. The GT line offers sporty looks derived from GT that give real performance with specific engine and chassis innovations whilst retaining high levels of comfort for daily use. R.S. delivers the best performance for uncompromised driving pleasure on roads and tracks.

RENAULT MEGANE R.S. TROPHY
Mégane R.S. 275 Trophy follows in the wheeltracks of the last limited edition Trophy introduced in 2011. Based on a Mégane R.S., the 2.0 litre petrol engine has been increased to 275 horsepower. This evolution of the Mégane Trophy Renault Sport-R beat the lap record for the legendary Nürburgring with a time of 7'54''36.

RENAULT MEGANE GT
The new Mégane GT presented at the 2015 Frankfurt Motorshow features a 205 horsepower petrol engine coupled to an automatic EDC double clutch 7-speed gearbox. The 4Control technology available on the new Mégane GT is unique in this segment. Defined by Renault Sport engineers, it provides highly effective sports handling.

RENAULT CLIO R.S. & CLIO R.S. TROPHY

The Clio R.S. has a 200 hp engine while the Trophy version introduced mid-2015 pulls 220 hp. It draws on the best of Renault in terms of comfort and versatility and the expertise of Renault Sport Technologies forged in competition. Renault Clio R.S. and Clio R.S. Trophy both have a 6-speed box EDC that literally bursts into outstanding sports performance. It is manufactured in the factory at Dieppe in Normandy.

RENAULT SANDERO R.S. 2.0

Introduced for the Latin American market at the Buenos Aires Motorshow in June 2015, Sandero R.S. 2.0 is a true Renault Sport car designed and manufactured in Brazil. The engine produces 150 hp while the car possesses all the iconic styling cues of Renault Sport. With this dedicated hot hatch, Renault Sport will contribute to increasing the sales and improving the image of Renault's profile in Latin American markets.

Renault's technological excellence in F1 for the benefit of all motorists

Renault's excellence on the racetrack has already found its way into the specification of its production engines. A prime example is the latest generation of Energy engines that have benefitted from the input of skilled specialists from the world of Formula 1.

Technology Transfer

Over the past five years privileged ties have been forged between Viry-Châtillon, where Renault's F1 powerplants are designed and developed, and the Technocentre in Guyancourt, the company's nerve-centre of road car engineering development. In addition, even closer ties will now be forged between Les Ulis, home to Renault Sport Cars. The close collaboration that exists between the race engine specialists and their production engine colleagues, as well as the one-off projects that involve both parties, allow breakthroughs in F1 to benefit road going engines, and vice-versa.

The speed at which developments occur in F1 and the analytical skills of Renault's race engine specialists enable the company to explore new technical solutions in extreme conditions. Competing with specialist makes on the racetrack also provides Renault, as a volume manufacturer, with a unique grasp of cutting-edge engine architectures.

This approach enables Renault to constantly improve the energy efficiency of both its race and road going engines in many different ways, including:

- **Turbocharging and downsizing**
- **Direct fuel injection**
- **Friction reduction**
- **Shared practices**

As such, Renault's customers benefit from a level of powertrain excellence that has been honed in the exacting world of motorsport.

Turbocharging

Turbocharging enables smaller cubic capacity engines to produce greater power despite lower maximum rev limits. Energy that would otherwise be wasted as heat in the exhaust gases is recovered to drive the turbo. This energy is then used to compress the intake air (compressor) and increase the pressure inside the cylinders.

Renault stood out as the pioneer in turbocharging and downsizing in Formula 1 when it debuted the R.S.01 turbo engine in 1977. It gradually made this technology widely available in emblematic high-performance production cars in the 1980s, including the R5 Turbo, R18 Turbo, R11 Turbo and R21 2 L Turbo.

Today, all the power plants that form Renault's Energy range are turbocharged with a view to reconciling the performance and fuel efficiency of its current smaller and lighter engines. Similarly, the R.E.16 is a V6 turbo, capable of producing more bang for buck than its engine displacement would normally allow.

Direct injection

Direct fuel injection permits accurate control of the form and rate of the fuel spray inside the cylinders and not inside the intake manifolds, as is the case with indirect injection.

Direct fuel injection in the Renault production cars also stems from the two-way dialogue between Viry and Guyancourt in their respective bids to optimise energy efficiency while minimising fuel consumption. The latter has been cut by 40 percent in the case of the R.E.16 and is down 25 percent in the case of Renault's Energy production engines.

Friction reduction

The Energy engine range benefits from Renault Sport Formula One Team's expertise in friction-reducing technologies, including:

- **DLC (Diamond Like Carbon) coating of cam followers**
- **Pressure Vapour Deposit (PVD) treatment of piston rings**
- **UFLEX oil control ring technology, which has been used in F1 for more than a decade. The form of the 'U' permits the piston ring to adapt to the exact profile of the cylinder wall to obtain the best compromise between efficiency (oil scraped off the lining to minimise consumption) and friction**

Fuel consumption

In F1, weight is public enemy number one. Low fuel consumption is clearly an advantage since it means you can carry less fuel, and that makes the car lighter and therefore faster.

Meanwhile, Renault's production engines are among the very best in terms of their low CO2 emissions for their cubic capacity. For example, New Clio Energy dCi 90's fuel consumption of 3.2 litres/100km and CO2 emissions of 83g/km allows it to rival with the best hybrid cars.

Electronic control systems

When it comes to improving powertrain performance in road car technology, electronic control systems play an increasingly important role. High-performance control units, algorithms that incorporate more and more physical models, virtual sensors and so on are critical in reducing energy consumption.

F1 engines are fitted with sophisticated electronic control units that are capable of processing 5GB of data per hour to control fuel consumption, engine modes and hydraulic systems.

Compound engines

The principle of recovering energy by placing a turbine in the exhaust line of a reciprocating engine and transmitting this energy to the crankshaft is not new. It was even used prior to World War 2 on certain airplane engines and a mechanical form was developed for trucks. The process is known as a 'compound' engine.

The advantage of an electric turbo-compound solution is that it enables the released energy to be controlled in real time in order to use it when and where it is really necessary. Depending on the need of the moment, it can be transmitted to the crankshaft, employed to maintain the speed of the turbine (and thereby reduce inertia during the transient phase), or quite simply stored in the battery until required.

Again, this technology mirrors that of F1's highly advanced power units.

Electric technologies

Renault is making a direct contribution to the emergence of electric technologies via a dual sporting and technical commitment. F1 power units now incorporate powerful electrical motors that are capable of harnessing energy lost under braking and in the exhaust. The recovered energy is stored in a battery and released on demand to boost power. In parallel, Renault's commitment to the new Formula E championship demonstrates Renault's environmental strategy and commitment to "zero-emission" vehicles.

The two-pronged commitment showcases Renault's determination to step up technological progress in electric vehicles. The technologies developed as part of our commitments will contribute to improving the performance of electric motors and the battery range.

Collaboration

In addition to sharing technologies, the pooling of systems and skills ensures real bonds between F1 and production vehicles as savoir-faire and sizing tools are pooled to optimise both road-going and F1 engines.

Renault Sport Formula One Team's experience of high-performance engines proved beneficial when it came to designing the cooling system for Renault's road-going turbocharged engines. An example is the transverse water flow system employed by Energy engines.

Validation processes based on a thorough understanding of engine physics are also one of Renault's key assets. Ensuring reliability at each race is vital to success in F1, while the durability of the brand's Energy powerplant range is recognised in quality surveys.

Last but not least, talent sharing with a view to pooling advanced skills is a vital ingredient when it comes to promoting fruitful, two-way dialogue and fostering the spirit of innovation. Philippe Coblence, who was behind the architecture of the Energy dCi 130, and Jean-Philippe Mercier, who was behind the Energy TCe blocks, are both former managers of Renault Sport F1's engineering office and architects of the V10, then V8 powerplants which were successful in F1 in the 1990s and 2000s.

They brought their personal expertise and exacting approach to their respective road-engine projects. Downsizing, for example, was taken to new limits thanks to technical solutions and processes brought with them from F1. Energy engines now boast an unprecedented technological package for their level of range and, compared with their predecessors, deliver combined-cycle fuel savings of up to 25 percent for the vehicles they power.

The wide variety of skills available across Renault is a major advantage that is also beneficial to Renault Sport Formula One Team. For example, the team at Viry-Châtillon makes intensive use of Renault's materials laboratory, as well as tools like the scanning electron microscope.

Thanks to these shared genes, technologies and skills, our savoir-faire in the field of production engines is acclaimed just as much as our expertise in F1.