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## The Grand Prix experience

Since researching and publishing the original 2005 edition of *Performance at the Limit – Business Lessons from Formula 1 Motor Racing*, the authors have had the continued privilege of attending a number of Grand Prix races.

Personal attendances at some of the world's most outstanding venues in Melbourne, Shanghai, Monaco, Imola, Spa-Francorchamps, Barcelona and Silverstone have left many lasting impressions and have allowed us the opportunity to interview many of Formula 1's leading team principals, drivers, sponsors, manufacturers and the sport's key movers and shakers.

For this edition, we were once again delighted to be granted full paddock access by the sport's long-term architect and leader, Bernie Ecclestone. By allowing us that access he has enabled us to work closely with a range of key people central to one of the world's greatest sporting arenas and businesses, Formula 1. This has allowed us to observe first-hand the many changes that the sport has undergone since our last collective visit to Barcelona in 2008, and with fresh information we have again recorded how, in a highly competitive business world, Formula 1 continually provides examples of innovation, teamwork, leadership and phenomenal rates of learning and improvement.

The ability to gain access to the inner sanctum of Formula 1 can never be underestimated, and as we have stated in previous editions, there are in reality two types of Grand Prix world: the outer public areas and the inner team areas.

The outer world is comprised of the public grandstands, vending and merchandising areas, programme sellers, camp sites, huge parking areas and the hundreds of thousands of passionate racing fans that flock to the races over the three-day periods of each weekend of racing.

The inner world of the circuit is comprised of the central paddock area, where access is strictly controlled by a highly desired credit card-sized pass worn around the neck on a lanyard. The pass carries the name and a photo ID of the person wearing it and it allows access to specifically accredited areas via a microchip sealed within it. Access is gained through the electronic pass readers at the paddock entry/exit points.

Once swiped in, the wearer of the FOM (Formula One Management) issued pass is now within the inner world of Formula 1 motor racing. This is a world reserved for the drivers and their managers, team members, sponsors, media and VIP guests, and is where, up to twenty-one times each year, the Grand Prix paddock becomes an extension of the world's corporate boardrooms. It is a place where deals are won and lost; politics and policy are played out; and where the world's sporting power brokers, investment bankers and capital venture firms meet and do business. Once referred to as 'The Piranha Club' by McLaren CEO Ron Dennis, it is not a place for the faint-hearted when it comes to business, for at times it is almost gladiatorial.

For the authors, the race of choice for the many interviews that were to be undertaken was the iconic Spa-Francorchamps race track in Belgium, with the event being run over the three days of the 21–23 August 2015 weekend.

This is the first race in the Championship held after the compulsory summer break period when the F1 teams are committed to taking time off in order to allow their staff to have a short period of holiday and rest, prior to recommencing on track battles at Spa for the remainder of the season. This race track is without doubt one of the most challenging and popular races in the Formula 1 calendar and one that the teams enjoy visiting immensely.

The original Spa motor racing circuit was built in 1921 and was first used for car racing in 1924, with the first Grand Prix held in 1925.

The race in that inaugural car racing year was won by Antonio Ascari in a factory 'works' Alfa. Sadly, Ascari died later that same year when racing at the French Grand Prix at a time when driver fatality was a regular occurrence.

Throughout its long and famous history, Spa has undergone many changes and is well known for its unpredictable weather. At one point in its past, twenty consecutive races were held in rainy conditions. Its location in the Ardennes region means the circuit can be dry in one

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	Driver	Entrant	Time
1	L. Hamilton	Mercedes AMG Petronas F1 Team	01:47.197
2	N. Rosberg	Mercedes AMG Petronas F1 Team	01:47.655
3	V. Bottas	Williams Martini Racing	01:48.537
4	S. Perez	Sahara Force India F1 Team	01:48.599
5	D. Ricciardo	Infiniti Red Bull Racing	01:48.639
6	F. Massa	Williams Martini Racing	01:48.685
7	P. Maldonado	Lotus F1 Team	01:48.754
8	S. Vettel	Scuderia Ferrari	01:48.825
9	R. Grosjean*	Lotus F1 Team	01:48.561
10	C. Sainz	Scuderia Toro Rosso	01:49.771
11	N. Hulkenberg	Sahara Force India F1 Team	01:49.121
12	D. Kvyat	Infiniti Red Bull Racing	01:49.228
13	M. Ericsson	Sauber F1 Team	01:49.586
14	F. Nasr	Sauber F1 Team	01:49.592
15	W. Stevens	Manor Marussia F1 Team	01:52.948
16	K. Raikkonen*	Scuderia Ferrari	
17	R. Mehri	Manor Marussia F1 Team	01:53.099
18	M. Verstappen*	Scuderia Toro Rosso	
19	J. Button*	McLaren Honda	01:50.978
20	F. Alonso*	McLaren Honda	01:51.420
	* Grid penalties incurred		

**Figure 1** Starting grid 2015 Formula 1® Shell Belgian Grand Prix

place and wet in another with fog and rain hanging in between the millions of trees that inhabit the area, and therefore it challenges drivers, mechanics and teams to come up with the best engineering solutions possible for the weekend, and with the added pressures of continually having to change the set-up of the race cars, which due to their complexity have a great many changeable parameters which can be altered to maximise their on-track performance.

It is a place where continuous improvement is a must and decisions need to be taken quickly if the teams of mechanics are to undertake their jobs efficiently and within the short time windows available to them each day. Unlike other, more glamorous locations such as Monaco and Singapore, the drivers, teams, guests and supporting staff required to run a Grand Prix find themselves living not in high-rise spacious apartments and luxury five-star hotels, but smaller family-run hostels and private dwellings, all of which adds to the unique atmosphere of this incredible venue.

The track itself provides some of the most challenging and high-speed corners in motor racing and pushes the drivers to the limits of their abilities. The famous Eau Rouge left-to-right hand flick and the super-fast entry and exit speeds always thrill the large crowds that attend, many of whom camp out for four days in the forests that surround this iconic motor racing venue. The atmosphere in the woods is one of a carnival with camp fires, beer and friendly rivalry.

The Grand Prix paddock is a place where a huge range of skills, services and talents are present. The teams' racing transporters, which are used to transport cars and equipment to all of the European venues, are here in abundance, as are the teams' equally impressive hospitality and catering units. In addition, the governing body of motorsport, the FIA, have their full facilities set up alongside units that represent a huge commitment in terms of manpower and technical resource from Formula 1's sole tyre supplier, Pirelli.

The teams' race transporters are specifically designed and manufactured not just as transportation for the racing cars and spares, but also as mobile workshops, data-management suites and a range of meeting rooms and executive suites.

Once positioned within the paddock, they are meticulously cleaned and are perfectly aligned to ensure the paddock exudes an image of total professionalism.

Sprouting tall aerials for their communications and telemetry equipment, it is hard to believe that all of this equipment is set up purely for the few days in each European host nation where races take place. At 'fly away' races, such as the Australian Grand Prix in Melbourne, the trucks are absent, but the equipment levels required by the teams remain constant.

The data produced by the monitoring of the racing cars is seen simultaneously by the on-site team; the engine manufacturers; the rows of senior personnel seated in front of rows of monitors on the pit-wall gantry; the staff back at the respective factories in the UK, USA and Europe; and in the case of the engine manufacturers, at their facilities in the UK (Mercedes), UK/Japan (Honda), France (Renault) and Italy (Ferrari). The data, communications and telemetry are effectively shared globally with all involved elements of the organisations and partnerships to provide the fastest-possible solutions to increase the team's performance on-site.

The scale of the ‘show’ is simply astonishing. While in Europe, the teams mainly handle their own car and equipment transportation via their purpose-built vehicles and transporters backed up by leading freight organisations. Currently, DHL are the official logistics company for FOM, carrying hundreds of tons of freight to the ‘fly away’ races via airfreight and seaborne shipping containers, and with global transport costs continually increasing, the team have taken to shipping duplicate sets of equipment to the long-haul overseas races in order to control costs, an example of which is the shipping by sea of a total of fourteen forty-ton containers to Mexico prior to the new Grand Prix there in 2015.

However, large amounts of airfreight are also still sent overseas, with top teams sending as much as thirty-eight tons of equipment each via air transport to the long-haul races and, when taking into account the mobile TV studio that FOM provide, up to seven heavy-aircraft freighters are required to get the materials to their destinations.

When watching a ‘fly away’ (intercontinental race) on television, just consider for one moment that everything you see in the pit lane, garages and paddock has to be packed, customs-cleared on departure and entry, delivered to the circuit, unpacked, set up and then broken down and shipped back to the teams’ base or onto another race, all with very tight time schedules, and you will see just how complex the business of Formula 1 logistics are. The same is true of the entire television production studios and equipment from where FOM distribute the Formula 1 practice, qualifying and race footage for global TV – these again are built and later dismantled for each and every race.

As the sporting and business activities of Formula 1 have increased over recent years, so has the requirement for the teams’ garages and on-site combined HQ and hospitality areas to become multi-functional. The mix of engineering challenges and providing VIP hospitality meeting and entertaining facilities has increased exponentially, and therefore the teams’ areas and equipment have grown to match these requirements.

The Red Bull energy centre and the McLaren and Mercedes hospitality units are examples of how advanced these all-encompassing centres of weekend excellence have become.

Once based on commercial motorhomes, these latter-day weekend team HQs are superb purpose-built units set within the Formula 1 paddock, and they are carefully controlled in terms of who can access

them. Inside, they provide levels of luxury, privilege, services and a quality of food and drink that would shame many full-time international catering venues. Simply put, they are, once again, a reflection of the professional teams that own and operate them. Containing meeting rooms, dining facilities, private offices and areas to relax, they are a haven of comfort within a hectic race weekend.

The actual layout within the paddock of trucks and motorhomes is strictly monitored, with the garages reflecting the seniority of the teams. Again, overseen by an FOM representative, the entire paddock area is laid out with millimetre precision, even within a challenging paddock such as Spa, where two layers of paddock exist due to the geographical position of the garages and with the paddock space effectively ‘trapped’ within the inner hairpin area of the circuit. Space is at a premium, but again, FOM use every metre to best effect.

The Formula 1 Paddock Club™ is another area that reflects the standards of the sport. This is a designated area for VIP hospitality, the location of which varies at each circuit, where the teams, sponsors and other commercial parties associated with Formula 1 invite their guests for optimum viewing and the highest-quality catering and drinks.

Finally, there are the teams’ working garage areas. Once again, these are designed to reflect the identity and personality of the organisation and its sponsors and investors. To step inside a Formula 1 garage is to enter another world. The levels of light, layout and cleanliness have to be seen to be believed, and reflect the teams’ factories in their national locations.

The entire interior of the garage area is designed around efficiency and serviceability while offering the corporate world the opportunity to display their corporate logos on the seamless printed panels that feature on the walls; for this is where their own brand, products and services are also on show to the world, and therefore world-class quality is essential.

Large flat-screen monitors display information, timings, logos and other essential race weekend details. The drivers have individual areas for their crash helmets, gloves and seating. Sponsors are given specific areas from which to view the team members working, or to actually view the pit stops in close-up action during the race while being in positions of safety, and all of this is achieved mindful of the fact that the world’s media and TV are watching on, ever present.

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In among all of this professional imaging, transportation, efficient garage-area design and VIP and media work lies the actual racing weekend and its demanding schedule of sessions and events. In among the deal brokering, VIP and sponsor tours of the garages and the media work lies the need for the drivers, engineers, engine manufacturers, mechanics and technical specialists to concentrate their efforts on practice, qualifying and the actual race on Sunday. Juggling all of these inter-related requirements is again another work of art.

The teams' media, sponsorship, hospitality, on-site race team and factory-based engineers and specialists all require a detailed specific timetable from which to work, an example of which is shown below from the Spa weekend. All is delivered in agreement with the drivers and the team's overall objectives.

As the Grand Prix weekend builds, so does the pressure on every team member. Most are on-site on Thursday (although they get there earlier when the race is at Monaco as it is the only circuit that uses the track on Thursday, Saturday and Sunday, leaving the track to other support races on the Friday), or earlier if it is a long-haul race in order to try and overcome jet lag and travel tiredness. Thursday afternoons are a time to review the layout of the paddock, meet and greet early arrivals and settle into the competitive rhythm of a race weekend.

Friday is a time for circulating the paddock, for searching out specific people and journalists and for catching up on the latest word on the street.

Come Saturday the mechanics, tyre fitters, engineers and drivers can be seen moving between the teams' mobile headquarter and garages, to media briefings, back to headquarters for lunch and private meetings and, if required consultation with the teams' medical specialist or a relaxing massage. Driving a Formula 1 car is a very physical process and requires high levels of mental and physical fitness. In order to keep the drivers in top condition, the teams provide dieticians, masseurs and in some cases coaches to keep their lead men and women perfectly honed throughout the weekend.

Saturday is all about the on-track practice and the all-important qualifying sessions in Q1, Q2 and Q3. Pole position is essential for a competitive start to the race on Sunday and by the end of the day at Spa, it was an all-Mercedes F1 Team 1–2 line-up, with Lewis Hamilton taking pole with a time of 1.47.197, followed by his team mate, Nico

**Thursday 20 August 2015**

Formula 1	Press Conference	15.00
Track Activity	Pit Lane Walk (3 day ticket holders)	16.00–18.00

**Friday 21 August 2015**

Formula 1	Pit Lane Walk (Paddock Club)	08.45–09.45
Formula 1	Practice #1	10.00–11.30
GP2	Practice	12.00–12.30
Formula 1	Pit Lane Walk (Paddock Club)	12.35–13.45
Formula 1	Practice #2	14.00–15.30
GP2	Qualifying	15.55–16.25
Formula 1	Press Conference	16.00–17.00
Porsche Supercup	Practice	16.45–17.30
GP3	Practice	17.50–18.35

**Saturday 22 August 2015**

Formula 1	Pit Stop Practice	08.30–9.15
Formula 1	Pit Lane Walk (Paddock Club)	08.30–09.45
GP3	Qualifying	09.45–10.15
Formula 1	Practice #3	11.00–12.00
Porsche Supercup	Qualifying	12.25–12.55
Formula 1	Pit Lane Walk (Paddock Club)	13.00–13.45
Formula 1	Qualifying	14.00–15.00
GP2	Race #1	15.40–16.45
GP3	Race #1	17.20–17.55

**Sunday 23 August 2015**

GP3	Race #2	09.25–10.00
GP2	Race #2	10.35–11.25
Porsche Supercup	Race	11.45–12.20
Formula 1	Pit Lane Walk (Paddock Club)	12.25–13.15
Formula 1	Drivers' parade	12.30
Formula 1	Starting grid presentation	12.45–13.15
Formula 1	National anthem	13.46
Formula 1	Race	14.00

**Figure 2** 2015 Formula 1<sup>®</sup> Shell Belgian Grand Prix Schedule



Rosberg, with a time of 1.47.655, and yet again the Mercedes drivers appeared to be in control (Figure 1).

Post-qualifying is a time of what appears to be a ‘controlled media frenzy’. The drivers and their team’s press aides can be seen in the paddock media area surrounded by journalists holding out their recording devices, hanging on the words of the successful and not so successful in order to meet their domestic and international reporting deadlines.

Cameras click, crowds jostle, media coordinators slowly but determinedly move their drivers back to the engineers, who are keen to debrief them on the car’s performance and where possible make further on-track improvements for race day.

Saturday evenings can also mean sponsor appearances with senior representatives for the drivers and lead team members. All of this and the track-side activity have to be taken into account, planned for and delivered seamlessly and professionally.

Sunday, race day, ‘the longest day’, dawns early. Arrive early enough and you will see the first people (usually the team HQ and catering staff) walking to their units and opening up their facilities, meeting rooms and catering areas for the day ahead. Shortly after them come the drivers and their managers, engineers, team mechanics, press officers and of course the all-important team principals.

Within a very short time the paddock is buzzing. The teams are all in, the clock is ticking down to the race start time, the race transporter drivers (truckies) are again cleaning and polishing their cabs and articulated trailers to perfection and the drivers, now totally focused on the day’s events, pause briefly for photographs or a final chat with a passing journalist or film crew member. Throughout all of this and over the three days is the ever-present sight of Bernie Ecclestone passing from team HQ to team HQ, garage to garage, ensuring that under his guiding hand the show runs faultlessly and to time.

Amidst all of this action, one cannot but help begin to notice and hear the crowds. When one is within the paddock, it can almost be a trance-like experience, such is the energy created by the comings and goings of the drivers, team members, media and VIPs. But now, with the race start approaching, another noise can be heard . . . that of tens of thousands of people blowing air horns, shouting out their favourite drivers’ names. It is the viewing public, the fans, the people who have camped out for days or driven through the night to be here to witness a

spectacle unlike any other in the world unfold in dramatic action once the red starting lights on the start line overhead gantry are extinguished.

Here at Spa, looking down the hill after the first hairpin right-hand corner, one can see the grandstands are full; the crowds have congregated at the bottom of the downhill section running into the lightning-fast Eau Rouge left-right flick where the drivers will power onto the uphill straight, taking them up to the highest part of the circuit, where the woods are alive with spectators awaiting the thrill of the Grand Prix.

With final handshakes in the garages, VIPs watch their team's drivers getting strapped into their cars, for the real purpose of the weekend is just minutes away. The pit lane opens just thirty minutes before the start of the race and closes with just fifteen minutes to go before they are off. Failure to be on the grid in your allotted qualifying position within this fifteen-minute window means disaster, as a start from the pit lane exit is your only option if you fail to make your position. The drivers appear calm, team managers focused and the mechanics aware of the challenges facing their drivers, each totally committed to their individual tasks.

One by one the drivers take up their positions on the grid, and in the few minutes before the start of the race they step out with helmets and fire-proof balaclavas off, talking to their engineers and mechanics and, even at this late stage, selected TV reporters such as former Grand Prix driver and now Sky TV Lead Commentator Martin Brundle undertake their frenetic grid 'walkabout', catching key comments from VIPs, Bernie Ecclestone and drivers alike.

With but a short time to go, the grid is cleared of all non-essential people. Standing on the sides of the tracks the engineers and mechanics see their drivers set off on the warm-up lap at the appointed minute and as the last car clears the grid they rush with their equipment, wheels and tyres, car jacks, tools and other essentials to the sanctuary of their team garages.

Meanwhile, completing their warm-up lap, the cars weave frantically to ensure they keep the heat in their tyres which up until the commencement of the warm-up lap have been kept at high temperatures by the electric tyre blankets used to ensure the tyres are at optimum heat for the race start.

The drivers round the last right and left-hand corner and head to their pre-allocated spaces on the starting grid and, once all are in