

2011 Formula 1™ Etihad Airways
Abu Dhabi Grand Prix

11-13 November
Weekend Program





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Khaldoon Khalifa Al Mubarak

CEO and Managing Director,
Mubadala Development Company

Welcome to Abu Dhabi and the grand prix weekend. This year's FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX marks the third occasion that our country has hosted the event at Yas Marina Circuit.

The drivers' title may already have been won – and we congratulate Sebastian Vettel on his performance this season and his second world championship – but there are still further points to be won. We expect a great

weekend of racing all the way to the checkered flag.

Off the track we have an equally exciting program. This year marks the 40th anniversary of the founding of the United Arab Emirates. We have been blessed by visionary leadership that has propelled our nation towards growth and future prosperity by investing in energy resources, diversifying the economy and empowering our people.

Strategically located between

East and West, the UAE is at the crossroads of emerging markets and at the forefront of a new economic shift in global growth. The Middle East, and especially the UAE, is well placed to capitalize on the expansive opportunities in the region and around the world.

We look forward to discussing these developments at the Mubadala Business Forum, alongside international decision-makers and prominent business leaders. Enjoy the weekend.



Healthcare

Mubadala Healthcare is playing an instrumental role in the creation of a thriving private healthcare sector for the Emirate, working to provide world-class facilities for UAE citizens and residents, particularly patients who would otherwise have to travel abroad for treatment.

Information & Communications Technology

Mubadala Information & Communications Technology invests in, and develops, a portfolio of ICT assets in Abu Dhabi. The aim is to establish a cluster of businesses that create high-value employment opportunities in IT and technology, telecoms, and satellite communications.



Infrastructure

Mubadala Infrastructure has a predominant focus on education and other social infrastructure. It is a prime mover in the economic transformation of Abu Dhabi, using public-private partnerships (PPP) with global institutions to finance and operate new facilities. Current assets include the UAE University, Paris-Sorbonne University Abu Dhabi and Zayed University.



Real Estate & Hospitality

Mubadala Real Estate & Hospitality develops commercial, residential, and leisure districts that are central to Abu Dhabi's long-term development and is helping to facilitate the development of a city that is environmentally, socially and economically sustainable.



Services Ventures

Mubadala Services Ventures focuses on building scalable regional business platforms across three sectors: defense, logistics and transportation, and financial services and leasing.



Mubadala businesses

100 per cent owned by Mubadala



ATIC

ATIC (Advanced Technology Investment Company) aims to position Abu Dhabi as a hub in the global technology network. ATIC has transformed the competitive landscape of the semiconductor manufacturing industry through the creation of GLOBAL FOUNDRIES, one of the world's top three semiconductor manufacturers.



Masdar

Masdar is Abu Dhabi's multi-faceted initiative advancing the development, commercialization and deployment of renewable energy and clean technologies and solutions. The company serves as a link between today's fossil fuel economy and the energy economy of the future – developing the 'greenprint' for how we will live and work tomorrow.

MUBADALA BUSINESS FORUM

The Mubadala Business Forum is an exclusive event that brings together business leaders and decision-makers to examine, discuss and explore emerging economic trends and opportunities.

This forum takes place as globalization has reached a pivotal point in which the developed economies – the traditional anchors of the global economy – are in recession; many are contracting and some are dangerously unstable.

In a twist of economic fortune, the developed world is now looking to the emerging economies for liquidity, consumer and commercial demand, fiscal restraint and economic growth.

This new dynamic is creating a 'global growth meridian' that links the emerging economies of Asia, the Middle East and South America, and is forming new trade and capital market connections that are rebalancing the global economy.

This has helped to place them as the new drivers of global demand and growth and as the new pillars of stability and liquidity. It also highlights the accelerating trade and investment flows taking place among emerging market economies.

The Mubadala Business Forum will feature a keynote address from Tony Blair, Quartet Representative and

former British Prime Minister, who will provide an overview of current global growth patterns, macro-level drivers, challenges and opportunities to this new economic order.

This will be followed by a panel debate that will feature some of the Middle East's and Asia's most prominent business leaders and decision makers. Our panel will comprise HE Sheikha Lubna Al Qasimi, UAE Minister for Foreign Trade, Khaldoon Khalifa Al Mubarak, CEO and Managing Director of Mubadala Development Company, Victor Chu, Chairman and CEO of First Eastern Investment Group and Ishaat Hussain, Finance Director of Tata Sons Limited.

Moderator

The panel will be moderated by John Defterios, CNN's Emerging Markets Editor. Since 2007, he has been the anchor of 'CNN Marketplace Middle East', a weekly business program featuring in-depth analysis and top newsmakers from across the Middle East.

Defterios has more than two decades of financial news and current affairs experience covering some landmark events including the Gulf War, fall of the Berlin Wall, World Trade Centre bombings and G8/G20 summits from his postings in London, Washington,

New York, Los Angeles, Rome and the Middle East. He is a World Economic Forum media leader and member of the Global Agenda Council on the Middle East and has served as Chairman of the Business Week Leadership Forums in London, Beijing and New York.

Keynote Speaker

Rt Hon Tony Blair

Quartet Representative



Tony Blair served as Prime Minister of Great Britain and Northern Ireland from May 1997 to June 2007. He was also the leader of Britain's Labour Party (1994-2007) and the Member of Parliament for Sedgefield, England (1983-2007).

Mr Blair continues to be active in public life. He has many interests, not least his current role in the Middle East, which takes up the largest proportion of his time. Since leaving Downing Street,

Mr Blair has served as the Quartet Representative to the Middle East. He represents the United States of America, the United Nations, Russia and the European Union, working with the Palestinians to prepare for statehood as part of the international community's effort to secure peace.

He has launched the Tony Blair Faith Foundation to promote respect and understanding between the major religions and to

make the case for faith as a force for good in the modern world.

Mr Blair continues to advocate on issues such as Africa and climate change, including working on governance projects in Rwanda, Sierra Leone and Liberia advising President Paul Kagame, President Ernest Bai Koroma and President Ellen Johnson Sirleaf respectively on policy delivery and attracting investment, with a team of his staff working full-time in all three countries.

Panel

HE Sheikha Lubna Al Qasimi UAE Minister for Foreign Trade



Sheikha Lubna Al Qasimi was appointed Minister for Foreign Trade in 2008, and previously held the position of Minister for the Economy from 2004 to 2008, becoming the first woman to hold a ministerial portfolio in the UAE Government.

She serves as Deputy Chairperson of the Emirates Nuclear Energy Corporation and was previously Chairperson of the UAE's Securities and Commodities Authority. Sheikha Lubna was CEO of Tejari, the

Middle East's first electronic business-to-business market place for emerging markets. She was included in *The Wall Street Journal's* "50 International Women to Watch" and placed 70th on *Forbes* magazine's "World's Most Powerful Women in 2010" list.

Sheikha Lubna holds a Bachelor of Science degree from California State University, USA, and an Executive MBA from the American University of Sharjah, UAE.

Khaldoon Khalifa Al Mubarak CEO and Managing Director, Mubadala Development Company



Appointed Mubadala Chief Executive Officer in October 2002, Khaldoon Al Mubarak is responsible for ensuring that the company's business strategy is aligned with its efforts to diversify the economy of Abu Dhabi.

He oversees Mubadala's developments, operations and investments in businesses across a wide range of industry sectors such as aerospace, healthcare, financial services, infrastructure, metals and mining, oil and gas, semiconductors and real estate.

Under his stewardship, Mubadala has evolved the breadth and depth of its operations and currently has over US\$46 billion in assets under management.

Mr Al Mubarak is a member of the Abu Dhabi Executive Council and holds a number of key positions within the public sector. As Chairman of the Executive Affairs Authority, he is responsible for overseeing the provision of strategic policy advice to the Chairman of Abu Dhabi's Executive Council, His Highness Sheikh Mohammed bin Zayed Al Nahyan, The Crown Prince of Abu Dhabi.

He is also Chairman of the Emirates Nuclear Energy Corporation, Chairman of the Abu Dhabi Media Zone Authority and Vice Chairman of the Abu Dhabi Urban Planning Council. Mr Al Mubarak is also a board member of a number of private companies.

Victor Chu Chairman & CEO, First Eastern Investment Group



Victor Chu is the Chairman and CEO of First Eastern Investment Group, a pioneer in private equity investments in China. He is also Chairman of FE Securities Limited and First Eastern Investment Bank.

He has served as Director and Council Member of the Hong Kong Stock Exchange, Member of the Hong Kong Takeovers and Mergers Panel, Advisory Committee Member of the Securities and Futures Commission, and part-time member of Hong Kong Government's Central Policy Unit.

He is currently a Foundation Board Member of the World Economic Forum in Geneva and co-chairs the Forum's International Business Council. He is also a Board Member of Zurich Insurance and chairs the International Chamber of Commerce's Commission on Financial Services and Insurance on a worldwide basis.

Mr Chu is a co-winner of the Kiel Institute's 2011 Global Economy Prize, which he shares with Professor Larry Summers of Harvard University and European Central Bank President Jean-Claude Trichet.

Ishaat Hussain Finance Director, Tata Sons Limited



Ishaat Hussain is the Finance Director of Tata Sons Limited. He has been with Tata Sons for over 30 years. Prior to joining the Tata Sons Board in 1999, he held various positions in Tata Steel Limited and was the Finance Director of Tata Steel from 1989 to 1999.

He is a graduate in Economics from the Delhi University and a member of the Institute of Chartered Accountants for England and Wales. He has also attended the

Advanced Management Programme at the Harvard Business School. He is the Tata representative on the boards of various Tata companies and is the Chairman of Voltas and Tata Sky Ltd.

Ishaat Hussain has been a member of the Board of Trade of India and is currently a member of Securities and Exchange Board, India Committee on Capital Markets. He is also a trustee of the India Foundation of the Arts.

Weekend Itinerary

THE WEEKEND AHEAD

Hospitality and generosity are part of the Emirate's culture, so you can feel assured of a warm welcome at the Mubadala Business Forum. From the luxurious surroundings of the Monte Carlo Beach Club and the Yas Marina Yacht Club to the sporting challenges of the Yas Links golf course and the 2011 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX, we hope you enjoy your stay in Abu Dhabi and look forward to spending some time with you.



Friday 11th

Signature Dinner

1900-1945

Cocktail reception

2000-2010

Khaldoon Khalifa Al Mubarak welcome

2010-2200

Dinner

2200-2330

Post-dinner reception

Monte Carlo Beach Club Abu Dhabi reflects the values and heritage of Monte Carlo SBM sister hotels and clubs in Monaco in a uniquely Arabic way. Offering world-class facilities, it is the first beach club on the amazing island of Saadiyat, itself a buzzing business and tourism destination.



Saturday 12th

Mubadala Business Forum

1000-1035

Tea/coffee reception

1035

Delegates seated

1040-1100

Keynote speech by Rt Hon Tony Blair

1100-1200

Panel discussion and Q&A session

1210

Depart Fairmont Hotel for Paddock Club Hospitality, Yas Marina Circuit

1230

Arrive at Yas Marina Circuit

Paddock Club Hospitality

1230-1340

Formula 1 Paddock Club Pit Lane Walk

1245-1315

Porsche GT3 Cup Challenge Middle East race 1

From 1400

Lunch

1400-1500

Formula 1 third practice session

1525-1600

Porsche Mobil 1 Supercup race 1

1700-1800

Formula 1 qualifying session

1830

Depart for Yas Yacht Club

1900-2230

Cocktail reception, Yas Yacht Club

Weekend Itinerary



Mubadala is offering three different venues for the morning of Sunday 13 November. You can choose the full-on F1 experience at the world's biggest indoor theme park, Ferrari World Abu Dhabi, or explore the history and culture of the UAE with a visit to Abu Dhabi's breathtaking Sheikh Zayed Grand Mosque. Alternatively, you can get into a competitive frame of mind with a round of golf at the Yas Links Abu Dhabi course.



Sunday 13th (Morning)

Ferrari World Abu Dhabi

1030-1230

VIP access to Ferrari World Abu Dhabi

1230

Depart Ferrari World Abu Dhabi for Paddock Club

Sheikh Zayed Grand Mosque

1000-1100

Private tour of mosque

1105

Depart mosque for hotel

1105-1230

Free time

From 1230

Depart hotel for Paddock Club

Sunday 13th (Afternoon/evening)

Mubadala Oil & Gas Golf Day

0700

Registration and breakfast

0800

Shotgun start

1300

Prizegiving

1330

Depart Yas Links for Paddock Club



Paddock Club, Yas Marina

From 1330

Lunch

1330-1420

GP2 Sprint race

1445-1520

Porsche Mobil 1 Supercup race 2

1500-1620

Formula 1 Paddock Club Pit Lane Walk

1530

Formula 1 Drivers' Track Parade

1530-1615

Formula 1 Starting Grid Presentation

1646

National Anthem

1648

Air Display Etihad fly-past

1700

2011 FORMULA 1 EITHAD AIRWAYS ABU DHABI GRAND PRIX

1900

Paddock Club closes

2000

Roof terrace closes

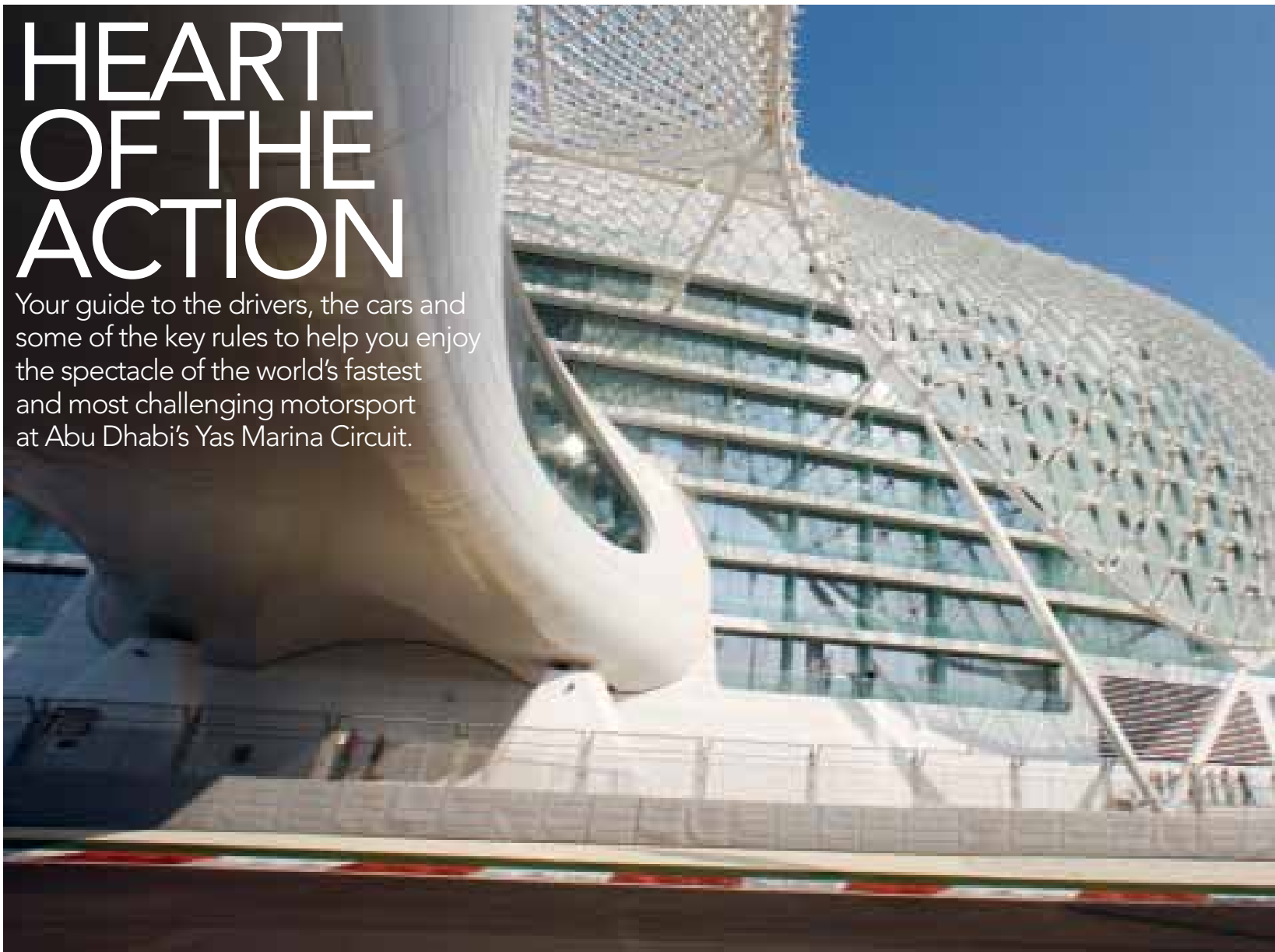
2100-2230

Paul McCartney in concert at Yas Arena (optional)



HEART OF THE ACTION

Your guide to the drivers, the cars and some of the key rules to help you enjoy the spectacle of the world's fastest and most challenging motorsport at Abu Dhabi's Yas Marina Circuit.



In the Paddock Club

As a guest of Mubadala, you will be in pole position to get the most out of the 2011 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX. Whether this is your first grand prix or you are a regular attendee, you cannot fail to be impressed by the spectacle on offer, all from the comfort of the Paddock Club.

The Paddock Club is the exclusive hospitality area at Formula 1 circuits around the world. At Yas Marina Circuit, the Paddock Club enjoys a perfectly stunning location – nestled between the start-finish straight and the amazing Yas Marina, and this is where you will be based during your time at the circuit.

So not only will you get great views of the racing action, you can also look across the water to see the super-yachts and the dazzling Yas Hotel, which changes color as the sun sets during the grand prix.

You will also get great access to Formula 1, with a pit lane walk that will get you up close and personal with some of the key people in the sport as they prepare for the race.

The Paddock Club is the ultimate meeting place, where the world's business leaders come to enjoy the spectacular Formula 1 action and discuss business opportunities in a relaxed and luxurious atmosphere.

Around the circuit

Rooftop Terrace

With views of the marina and circuit, the Paddock Club's rooftop terrace is the perfect place to enjoy the atmosphere of the race and mingle with other guests.

Facilities

The facilities at the circuit include the Yas Drag Racing Centre, Yas Racing School, Yas Kartzone, two race

control and pit areas, a multi-zone Media Centre and 18 permanent hospitality villas.

F1 Village and Oasis

Yas Marina Circuit's F1 Village and Oasis areas include live music, interactive displays, climbing walls, bungee trampolines, race simulators, international cuisine and much more. It's open from 1000-2030 Friday to Sunday.

In numbers

14%

The average amount of time spent braking during a lap.

44

Average number of gear changes per lap.

60%

The percentage of a lap which is spent at full throttle around the Yas Marina Circuit.

5

Number of circuits that run in an anti-clockwise direction from the 19 on this year's Formula One calendar, including Yas Marina Circuit.

Main Grandstand
Located along the start/finish straight, the Main Grandstand gives excellent views of the dramatic start

Paddock/hospitality
Yas Marina's Paddock Club offers the chance to network with clients while watching the action from a vantage point above the pit lane

North Grandstand
This horseshoe-shaped grandstand offers views along the main straight, where drivers will activate their Drag Reduction Systems for an added burst of speed

Where is Yas?

YAS MARINA CIRCUIT

Welcome

From the iconic Yas Viceroy Hotel's colored light show to the views of super-yachts moored nearby, Yas Marina Circuit takes your breath away. Designed with overtaking in mind, the circuit features one of F1's longest straights and a unique underground pit lane exit, where cars pass

through a narrow tunnel before rejoining the race, making this an incredible venue to watch the world's best drivers go head-to-head. The grand prix is also a visual treat, with the evening sunset providing a spectacular backdrop to the racing action on the track.

Stats

Number of laps	55
Circuit length	5.55km
Number of turns	21
Race distance	305.355km
Lap record	1:40.279 (Vettel, 2009)
Maximum speed	316km/h
Downforce level	Medium/high
Brake wear	High
Tire wear	Medium

Diffuser

The rear section where the air flowing under the car exits. The faster the air flow, the more downforce is generated.

DRS

Drag Reduction System allows the driver to adjust the wing settings from the cockpit. During the race, it is activated when

a driver is under a second behind another car at certain points on the track, and is used to help overtaking moves.

Engine

All Formula 1 cars have 2.4-litre V8 engines, limited to 18,000rpm. Each driver is allowed eight different engines per season.

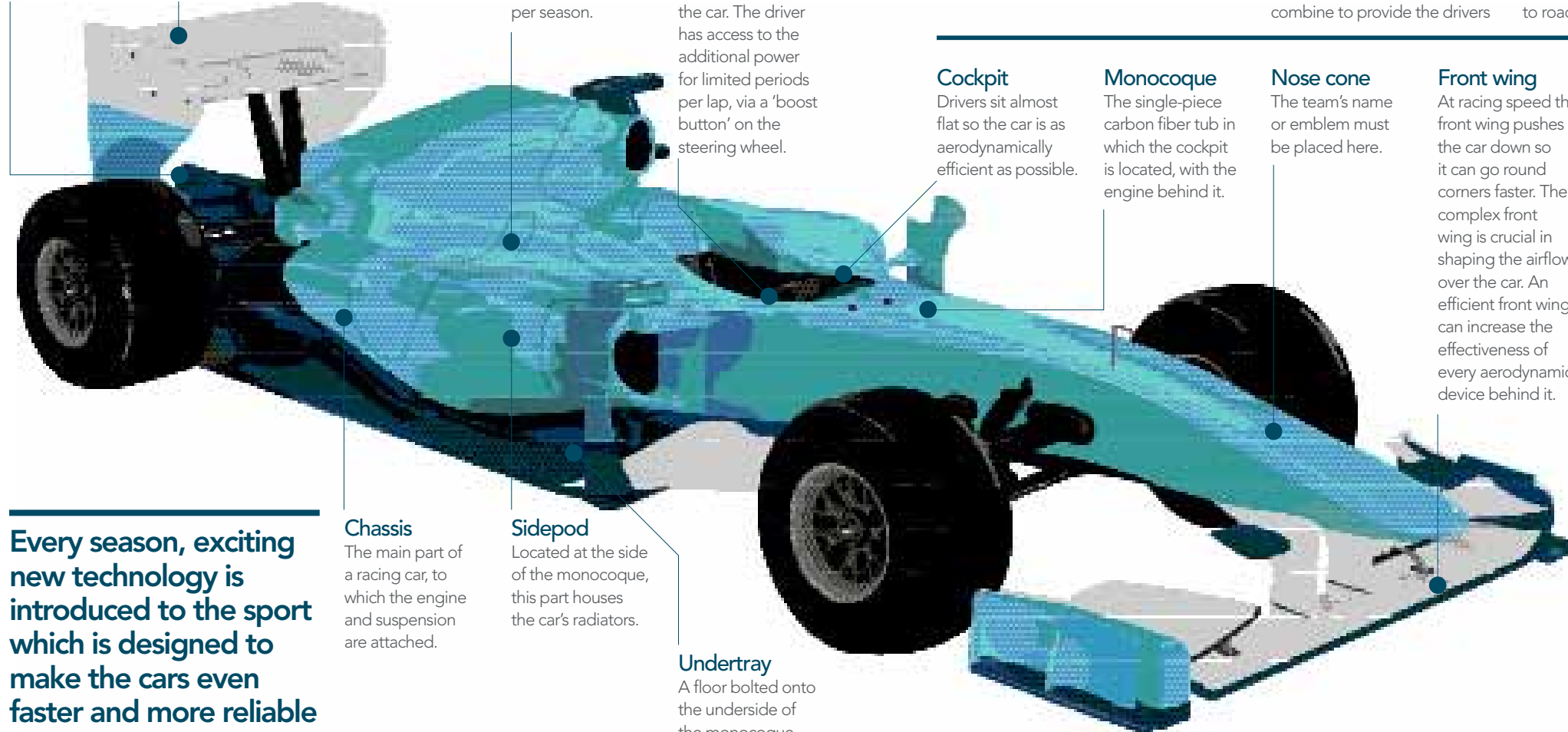
KERS

Kinetic Energy Recovery Systems, take energy from the car during braking, store it and make the energy available to propel the car. The driver has access to the additional power for limited periods per lap, via a 'boost button' on the steering wheel.

AN F1 CAR IN DETAIL

Formula 1 cars are designed to perform safely at 300km/h, pressed down onto the track by advanced aerodynamic devices. They are incredibly sophisticated (and expensive) pieces of hardware. Inspired design and engineering genius combine to provide the drivers

with the fastest vehicle possible. Every season, exciting new technology is introduced to the sport, which is designed to make the cars faster and more reliable. Often, the technology that is created and tested in Formula 1 is then transferred to road car production.



Cockpit

Drivers sit almost flat so the car is as aerodynamically efficient as possible.

Monocoque

The single-piece carbon fiber tub in which the cockpit is located, with the engine behind it.

Nose cone

The team's name or emblem must be placed here.

Front wing

At racing speed the front wing pushes the car down so it can go round corners faster. The complex front wing is crucial in shaping the airflow over the car. An efficient front wing can increase the effectiveness of every aerodynamic device behind it.

Car livery

Teams must run their two cars with the same race livery throughout the season. Each car must carry a race number, visible from the front of the car, and the driver's name must appear on the external bodywork. To help distinguish between two identical cars, onboard cameras positioned on the top of the chassis' rollover structure are different colors – fluorescent red on the first car, and fluorescent yellow on the second car.

Every season, exciting new technology is introduced to the sport which is designed to make the cars even faster and more reliable

Chassis

The main part of a racing car, to which the engine and suspension are attached.

Sidepod

Located at the side of the monocoque, this part houses the car's radiators.

Undertray

A floor bolted onto the underside of the monocoque.

2011 teams and drivers

SEASON IN NUMBERS



700

Vodafone McLaren Mercedes celebrated its 700th Formula 1 race at the recent Korean GP. With 174 victories to its name, the team has won 24.9 percent of the grands prix it has started.



25

Number of grand prix victories achieved by Red Bull over the past three seasons.

Red Bull Racing

Backed by the famous energy drink, this team has become the one to beat. As well as having world champion Sebastian Vettel and probably the best car in Formula 1, its pit crew is among the fastest, giving the team a tactical edge.



1 Sebastian Vettel



Age 24
Nationality German
GPs 78
Wins 20

2 Mark Webber



Age 35
Nationality Australian
GPs 173
Wins 6

Vodafone McLaren Mercedes

One of the most successful teams in the history of the sport, McLaren is active in a number of high-technology industries, including performance cars. It is the only current team to have two former F1 champions on its roster.



3 Lewis Hamilton



Age 26
Nationality British
GPs 87
Wins 16

4 Jenson Button



Age 31
Nationality British
GPs 205
Wins 12

Scuderia Ferrari Marlboro

One of the most evocative brands in the automotive business, Ferrari is the only team to have competed in every F1 season since the world championship began in 1950, winning 15 drivers' and 16 constructors' titles.



5 Fernando Alonso



Age 30
Nationality Spanish
GPs 173
Wins 27

6 Felipe Massa



Age 30
Nationality Brazilian
GPs 149
Wins 11

Mercedes GP Petronas F1 Team

So far this year the Mercedes car has been among the quickest on the straights, but loses out in the corners. Seven-time world champion Michael Schumacher is still a fierce competitor out to prove himself, even at the age of 42.



7 Michael Schumacher



Age 42
Nationality German
GPs 283
Wins 91

8 Nico Rosberg



Age 26
Nationality German
GPs 105
Wins 0

SEASON IN NUMBERS



5

Highest number of Safety Car deployments during a race this season. In the Canadian Grand Prix the Safety Car came out five times and led 45.7 percent of the race.

651

The number of laps led by World Champion Sebastian Vettel this year. The next most prolific lap leader is Lewis Hamilton on 99!

2011 teams and drivers

SEASON IN NUMBERS



6 The number of different drivers to have set fastest laps at a grand prix this year: Mark Webber (5), Lewis Hamilton (3), Jenson Button (3), Sebastian Vettel (2), Felipe Massa (2), Fernando Alonso (1).

12 Sebastian Vettel is the pole position king in 2011, starting from the front of the grid 12 times in 16 races. His Red Bull team-mate Mark Webber has started from pole three times, and McLaren's Lewis Hamilton once.

Lotus Renault GP

Racing in a distinctive black and gold livery, the Lotus Renault is equally noticeable on the circuit thanks to the sound of its unique exhaust system. The forward-facing exhaust was adventurous but has had mixed results so far this season.



9 Bruno Senna  **10** Vitaly Petrov 

Age	28	Age	27
Nationality	Brazilian	Nationality	Russian
GPs	23	GPs	35
Wins	0	Wins	0

AT&T WilliamsF1

One of the most successful F1 teams of all time, having taken 113 wins and nine constructors' titles. It has struggled without manufacturer backing in recent years and its last win came in Brazil in 2004, though it remains a regular midfield force.



11 Rubens Barrichello  **12** Pastor Maldonado 

Age	39	Age	26
Nationality	Brazilian	Nationality	Venezuelan
GPs	319	GPs	16
Wins	11	Wins	0

Sahara Force India F1

Although its factory is just outside the gates of Silverstone, home of the British Grand Prix, this team is 85 percent owned by Indian entrepreneurs Vijay Mallya and Subarata Roy Sahara. Recent investment has brought much improved results.



14 Adrian Sutil  **15** Paul di Resta 

Age	28	Age	25
Nationality	German	Nationality	British
GPs	87	GPs	16
Wins	0	Wins	0

Sauber F1 Team

Peter Sauber's Swiss-based team has made a modest budget go a long way and introduced a lot of talented new drivers to the sport, including Sergio Perez and Kamui Kobayashi, one of F1's most fearless overtakers.



16 Kamui Kobayashi  **17** Sergio Perez 

Age	25	Age	21
Nationality	Japanese	Nationality	Mexican
GPs	37	GPs	14
Wins	0	Wins	0

SEASON IN NUMBERS

0.031s Sebastian Vettel took pole position from Lewis Hamilton by 0.031s in the 2010 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX.



1:41.274s The fastest lap in the 2010 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX, set by Lewis Hamilton in the Vodafone McLaren Mercedes MP4-25. Team-mate Jenson Button's personal best was just 0.362s slower.

2011 teams and drivers

SEASON IN NUMBERS



3
The number of laps led by seven-times world champion Michael Schumacher in 2011.

40
The number of laps led by Sebastian Vettel in the 2010 FORMULA 1 ETIHAD AIRWAYS ABU DHABI GRAND PRIX. Jenson Button led 15.

16
Scuderia Ferrari is the most successful Formula 1 one team of all time in terms of Constructors' Championships won, with 16 titles.

Scuderia Toro Rosso

Formerly Red Bull's second team but now operating separately, this Italian-based team is a proving ground for talent from Red Bull's driver development program. World champion Sebastian Vettel is one of its former graduates.



18 Sebastian Buemi



Age 23
Nationality Swiss
GPs 52
Wins 0

19 Jaime Alguersuari



Age 21
Nationality Spanish
GPs 43
Wins 0

Team Lotus

Consistently the most competitive of Formula 1's new teams, Team Lotus has a large number of technical staff with experience of working for the leading teams. It also has experienced and consistent drivers in Trulli and Kovalainen.



20 Heikki Kovalainen



Age 30
Nationality Finnish
GPs 86
Wins 1

21 Jarno Trulli



Age 37
Nationality Italian
GPs 249
Wins 1

HRT F1 Team

The HRT team joined the grid in 2010 and its car has often struggled to match the pace of its rivals. Results have improved with further investment and the recruitment of the experienced Vitantonio Liuzzi as lead driver.



22 Daniel Ricciardo



Age 22
Nationality Australian
GPs 8
Wins 0

23 Vitantonio Liuzzi



Age 31
Nationality Italian
GPs 78
Wins 0

Marussia Virgin Racing

Bought by Marussia, the Russian supercar manufacturer, this team has undergone many changes in 2011. Ex-Renault engineer Pat Symonds has joined to lead the development of next year's car.



24 Timo Glock



Age 29
Nationality German
GPs 69
Wins 0

25 Jerome d'Ambrosio



Age 25
Nationality Belgian
GPs 16
Wins 0

SEASON IN NUMBERS

13
Highest-placed finish achieved in 2011 by any of the three 'new' teams. Jarno Trulli was 13th in Australia and Monaco for Team Lotus, while his team-mate Heikki Kovalainen was 13th in Italy. Vitantonio Liuzzi was 13th for HRT in Canada.



21
Paul di Resta is the most successful of the rookie drivers making their debut in 2011, scoring 21 points so far. Next best is Sergio Perez, with 13 points.

Figures correct at time of press. 26 October 2011



Formula 1 tires

All Formula 1 tires are supplied by Pirelli. The Italian tire manufacturer has a deal until 2013.

107%

Qualifying rule

Drivers failing to set a lap within 107 percent of the fastest time in the first qualifying phase will not usually be permitted to race.

THE KEY RULES OF FORMULA 1

Formula 1's rules and regulations can get a little complex, so here's an abbreviated version



How to win

At the heart of F1 is the competition for points. Whatever their team, drivers aim to qualify in the highest position and score as many points as possible in the race. Points are awarded for the following finishing positions:

1st	25
2nd	18
3rd	15
4th	12
5th	10
6th	8
7th	6
8th	4
9th	2
10th	1

Driver protocol

Stewards have the power to impose various penalties on a driver if he commits an offence during a race. These could include jumping the start, causing an avoidable accident, unfairly blocking another driver, impeding another driver when being lapped, speeding in the pit lane, or gaining an advantage by leaving the track.

Team curfew

Team personnel connected with the operation of the cars are not allowed into the circuit between midnight and 6am when practice is scheduled to start at 10am the following day, or from 1am-7am when practice

starts at 11am. Each team is permitted four individual exceptions to this rule during the season.

Team orders

The clause in the sporting regulations banning team orders has been removed this season.

Driver changes

Teams may use up to four drivers during a season, all of whom may score points in the championship. A driver change may be made with the permission of the stewards any time before the start of qualifying. The new driver must use the engine and tyres allocated to the original driver.

On top of this, in each of Friday's two practice sessions teams may run additional drivers, though each team is still limited to two cars. Any holder of a Super Licence may run as an additional driver, but stewards must be informed of a team's plans before the end of initial scrutineering on the Thursday prior to practice.

Classification

Drivers can still be given a placing in the official race results even though they retired before the end of the race. FIA regulations state that any driver who completed at least 90 percent of the race distance will be classified, whether or not he was running when the winner took the checkered flag.

If a race is stopped before the full distance and a result is declared, the classification will reflect the race order at the end of the lap two laps prior to that on which the race was stopped.

For example, if a race is stopped on lap 60, the classification will be as it was at the end of lap 58.

Tires

Eleven sets of dry-weather tires are made available to each driver per race weekend. Drivers will receive three sets (two prime, one option) to use in P1 and P2 and must return one set after each session. A further eight sets will then be at their disposal for the rest of the weekend, although

Teams may use up to four drivers during a season, all of whom may score points in the championship

one set of each specification must be handed back before qualifying.

If a driver fails to use both specifications of dry-weather tires during a dry race, they will be excluded from the results. If a dry race is suspended and can't be restarted, and a driver has failed to use both specifications, 30 seconds will be added to the driver's race time. Tires can be distinguished by the coloring of the sidewall stripe and lettering:

- Wet: orange
- Intermediate: light blue
- Super soft: red
- Soft: yellow
- Medium: white
- Hard: silver

THE DRIVERS

Formula 1 is a complex and multi-dimensional sport that brings together teams of experts with wide-ranging skills and high-pressure jobs.

At the pinnacle of the sport are the F1 drivers. Among the fittest athletes on the planet, they are required to perform at speeds of up to 330km/h, while also concentrating on finding the racing line, being aware of other cars on the track, managing tire pressure, heat and fuel consumption.

The drivers must also decide when and where to deploy their KERS and DRS technology and must communicate and follow instructions from their pit crew over the team radio.

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Glossary of Formula 1 terms

Aerodynamics

The science of measuring airflow around objects and an intrinsic part of F1 car design.

Apex

The middle point of the inside line around a corner, and the place at which drivers aim their cars.

Chicane

A tight sequence of corners in left-right or right-left directions.

Downforce

The downwards aerodynamic force applied as a car travels forwards. This is harnessed to improve a car's traction and handling in corners.

Drag

The aerodynamic resistance created as a car travels forwards.

DRS

Introduced in F1 in 2011, the Drag Reduction System opens an adjustable flap on the rear wing, reducing drag and giving the pursuing car more speed.

Drive-through penalty

The penalized driver must drive through the pit lane, complying with the speed limit, and rejoin the race without stopping.



Formation lap

Before the start of the race, cars drive one lap then line up in correct qualifying order on the grid.

G-force

A physical force, equivalent to one unit of gravity, that increases during changes of direction or speed. F1 drivers experience severe G-forces.

Grip

The amount of traction a car has, affecting how easy it is to keep control through corners.

KERS

The Kinetic Energy Recovery System stores the kinetic energy recovered under braking for later use in acceleration.

Lollipop

The sign held in front of the car during a pit stop to inform the driver to apply the brakes, then engage first gear and depart.

5 G-force
Drivers experience G-forces of up to 5g around F1's fastest corners.

17 Pit stop
There are 17 members of the pit crew, from the mechanics who change tires to the lollipop man.

Marshal

A course official who oversees the safe running of the race by removing stranded cars from the track, and waving flags to signal the condition of the track to drivers.

Oversteer

When a car's rear end tries to 'overtake' the front end as the driver turns in to the corner.

Paddock

An enclosed area behind the pits in which the teams keep their transporters and motor homes. There is no admission to the public.

Parc ferme

A fenced-off area into which cars are driven after qualifying and the race, where no team members are allowed to touch them except under strict supervision.

Pit board

A board held out on the pit wall to inform a driver of his race position, gap to the following car and other useful information.

Pit wall

The part of the pit lane where the team owner, managers and engineers spend the race, analyzing race information.

Pits

An area of track separated from the start-finish straight by a wall. This is where the cars are brought for new tires and parts during the race, each stopping at their respective pit garages.

Pole position

The first place on the starting grid for the race, awarded to the driver who recorded the fastest lap in qualifying.

Qualifying

The three-part knock-out session held on Saturday in which drivers compete to set the best lap time they can in order to determine the starting order for the race.

Retirement

When a car has to drop out due to an accident or mechanical failure.

Safety car

A vehicle that is called from the pits to run in front of the race's leading car in the event of a problem that requires the cars to be slowed down.

Scrutineering

The technical checking of the cars by officials to ensure none are outside the regulations.

Sectors

A lap is split into three sections. This helps teams to identify where drivers are performing well.

Slipstreaming

A tactic where a driver positions his car directly behind another in order to benefit from a reduction in drag, and therefore increased speed. The driver behind can often then 'slingshot' past the car he is trailing.

Steward

One of three high-ranking officials at each grand prix appointed to make key decisions.

Stop-go penalty

A penalty where the driver stops at his pit garage for 10 seconds.

Telemetry

A system that sends data to the pit garage so that engineers can monitor the car.

Traction

The degree to which a car is able to transfer its power onto the track surface for forward progress.

Understeer

When the front end of the car does not want to turn into a corner and slides wide.