

**Communications Motorsport**

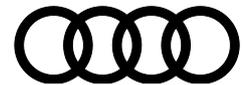
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December 2018

**MOTORSPORT INFORMATION**

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Audi in Formula E 2018/2019

## **Big aims for the new season**

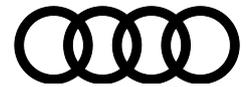
**On winning the teams' championship, Audi celebrated a perfect debut in Formula E. The squad headed by Team Principal Allan McNish is tackling the "title defense mission" and win of the top spot in the drivers' classification with the newly developed Audi e-tron FE05, proven partners and the well-gelled duo of Daniel Abt and Lucas di Grassi.**

"Reset to zero" is the pre-season motto before Formula E season five kicks off in Saudi Arabia in December: The fully electric racing series will start into a new era with a new car, new regulations, and new teams, drivers and venues. For the first time, only one race car will be used per driver, which will lead to a complete change of thinking in terms of race strategy and all-new elements of suspense. In the past, a mandatory car change split the race into two parts.

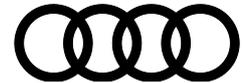
At the end of 2017, Audi was the first German automobile manufacturer to enter Formula E with a factory-backed commitment and on winning the teams' classification and second place in the drivers' championship made a dream start to the company's electric motorsport era. "We're not resting on the laurels of past success. Our aim for the next season is clear: We again intend to battle for the titles in all classifications," says Allan McNish.

Team Audi Sport ABT Schaeffler is taking on the new challenges with a proven and successful squad. In keeping with the motto of "Never change a winning team," Audi, together with technology partner Schaeffler, developed the motor-generator unit (MGU) of the Audi e-tron FE05. ABT Sportsline is again responsible for preparing and fielding the cars. The outfit based in Kempten was successful in Formula E as a privateer team from 2014 to 2017 and then handed their entry over to Audi. The collaboration with Envision Virgin Racing is a new element in the coming season. The British racing team is entering two further Audi e-tron FE05 cars.

Audi shows consistency in filling the two cockpits as well: Daniel Abt and Lucas di Grassi are racing for the German team. The German-Brazilian duo is the only driver pairing in the field to have contested all 45 of the Formula E races held to date side by side. In total, they have clinched ten victories and mounted the podium on 35 occasions – more often than any other team. Daniel Abt is starting the season in car number 66, a number he personally selected at the beginning of his Formula E career. His teammate, Lucas di Grassi, after a year in car number 1 of the champion, is changing back to his lucky number, 11, which his car bore in the first three years.



The team is supported by Audi factory driver Nico Müller. Besides his DTM commitment the Swiss is active as the test and development driver for the Formula E project as well. His tasks also include setup development and race preparation in the simulator. In addition, he will accompany the team on-site at selected races and double-header events.



e-tron

## **e-tron as the starting signal for Audi e-offensive**

**The world debut of the Audi e-tron in September 2018 marked the launch of Audi's electrification offensive. By 2025, the brand will offer twelve automobiles with fully electric powertrains in the key markets around the globe and generate a third of its sales with electrified models.**

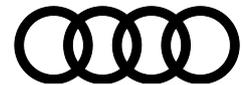
The SUVs within this portfolio, among others, include the e-tron and e-tron Sportback that will make its debut in 2019. In addition, there will be a range of models with classic body layouts such as the Avant and the Sportback. The range is planned to cover all relevant market segments from the compact class through to the full-size and luxury class.

Motorsport, once again, is playing a pioneering role in this context. For nearly 40 years, Audi has been active in top-caliber motorsport in order to test new technologies for production. quattro, TFSI, TDI and hybrid are now followed by e-tron. The Audi e-tron FE04, the championship-winning car in the 2017/2018 Formula E season, was the Group's first fully electric race car.

The Audi e-tron and the e-tron Sportback use components from Audi's modular longitudinal kit. Together with numerous innovative technologies, particularly in the area of the powertrain, this results in a dedicated product family of electric SUVs with electric quattro all-wheel drive. The quick-charging capacity with up to 150 kW and a large range for long-distance travel set the benchmark in this class.

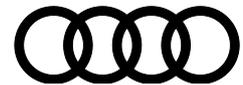
Before the end of 2018, Audi will unveil the initial representative of another electric platform: At the Los Angeles Auto Show, the Audi e-tron GT concept, a highly dynamic coupe with a flat underbody, will make its debut. The technology of this automobile was created in collaboration with Porsche – at the same time, the design and character of the e-tron GT concept embody a maximum of unmistakable Audi DNA.

Since as far back as the late 1980s, Audi has been developing models with pure electric or hybrid drive. An initial production automobile available with a combination of an internal combustion engine and an electric motor was the Audi duo with the body of an Audi A4 Avant in 1997. A technological milestone for electric cars was marked by the Audi R8 e-tron, unveiled at the IAA in 2009 and in 2012, on setting a record lap, the fastest electric automobile on the Nordschleife of the Nürburgring.



AUDI AG will significantly expand its offering of plug-in-hybrid automobiles. In the future, nearly every market segment will include models that are powered by a combination of an electric motor and an internal combustion engine and can be charged via a socket.

The four-door Audi Aicon design vision permits a glimpse into the decade after next. At the 2017 Frankfurt Motor Show, the brand with the four rings unveiled a fully autonomous Audi of the future. In a visionary way, the technology showpiece combines innovations for the powertrain and chassis, digitalization and sustainability. The Aicon is designed for fully electric operation and planned to cover distances between 700 and 800 kilometers on a single battery charge.



Daniel Abt (Audi e-tron FE05 #66)

## The promotee

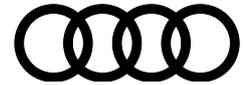
**On clinching his first two victories in Formula E and posting the largest number of fastest race laps, Daniel Abt in his fourth season ultimately achieved his breakthrough. Now the 25-year-old German is ready for the next step.**

An autograph here, a selfie there and always time for a brief chat with the fans – Daniel Abt lives and loves Formula E. Since the racing series' debut in September 2014, the German has been forming a team with Lucas di Grassi and due to his approachable nature is one of the most popular drivers in the paddock. "I like the special spirit in Formula E – not only among the teams but also among us race drivers and the fans around the world. That's unique."

Daniel Abt knows what he is talking about. Although, having been born in 1992, he is among the youngest drivers in the Formula E field his biography already reflects an equally long and successful career. After several years in kart racing, Abt, in 2009, clinches the title in the ADAC Formel Masters in just his second "real" motorsport season and finishes the German ATS Formula 3 Cup as the runner-up the following year.

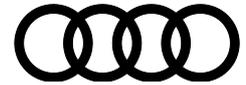
This is followed by the Formula 3 Euro Series and, in 2012, the GP3 Series held as part of the Formula 1 supporting program. Here Abt battles for the title up until the last weekend and ultimately finishes runner-up. Subsequently, Abt competes in individual races of the high-horsepower Formula Renault 3.5 and afterwards races two seasons in GP2, a series directly below Formula 1. A class victory clinched at Le Mans in 2015 with the ceremony on the famous podium held in front of 200,000 fans has been the highlight to date in his career aside from single-seater racing. In GT racing as well, Abt gathers initial experiences in the ADAC GT Masters with Bentley.

While in the first three Formula E seasons Daniel Abt was still somewhat in the shadow of his teammate and tended to attract attention to himself with respectable occasional results he now is finally in the group of favorites on every race day. "I'm sure that Daniel's initial victories were just the beginning," says Team Principal Allan McNish. The young German feels ready for the next step as well: "I checked off my next stage goal on scoring these wins. Now I want to be constantly at the front and possibly in contention for the title as well," he says.



Unforgotten in season four is Daniel Abt's absolutely perfect race day in Berlin when he clinches pole at his home round, wins the race with a lights-to-flag victory, plus sets the fastest race lap. More than that is impossible. When he's not sitting in the cockpit or discussing the next steps with his mechanics and engineers Daniel Abt can often be seen in the paddock with a camera in his hands. Shooting footage for his YouTube channel has become more than a hobby by now. Half a million views of a video are no longer uncommon. Abt not only takes the fans behind the scenes of Formula E but also presents the innovations of the ABT Sportsline family business.

Even though Formula E takes him around the world and he enjoys the cultures of foreign countries Daniel Abt always looks forward to returning to his native Allgäu. There, in Kempten, the big fan of the United States lives together with Nadine, his girlfriend of many years. Aside from motorsport, family and friends are the most important things for the youngster.



Biography

**Daniel Abt (D)**

**Date of birth:** December 3, 1992

**Place of birth:** Kempten (D)

**Residence:** Kempten/Munich (D)

**Marital status:** single

**Height/Weight:** 1.79 m/72 kg

**Motorsport debut:** 2001

**Sporting career**

**2001–2007** Karting

**2008** 8th ADAC Formula Masters

**2009** 1st ADAC Formula Masters

**2010** 2nd ATS Formula 3 Cup

**2011** 7th Formula 3 Euro Series, 4th FIA Formula 3 International Trophy

**2012** 2nd GP3 Series, 12th ATS Formula 3 Cup, Formula Renault 3.5

**2013** 22nd GP2 Series

**2014** 16th GP2 Series

**2015** 11th FIA Formula E, FIA World Endurance Championship (WEC), 1 victory LMP1 privateer teams

**2016** 7th FIA Formula E, ADAC GT Masters

**2017** 8th FIA Formula E

**2018** 5th ABB FIA Formula E (Audi e-tron FE04), 2 victories

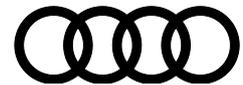
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Lucas di Grassi (Audi e-tron FE05 #11)

## The record man

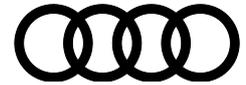
**After four years, Lucas di Grassi is the most successful driver in Formula E history: No other driver has clinched more podiums (27) or points (611): record laurels, however, on which the 34-year-old Brazilian by no means rests.**

Lucas di Grassi is a founding member of Formula E. Long before sitting in an electric race car for the first time, he joined CEO Alejandro Agag behind the scenes in defining the basic elements and processes in the series and provided important impetus based on his experience. On track, the South American is among the protagonists and favorites for victories and titles every race weekend. Following a season as the champion in car number 1, di Grassi is now switching back to 11, his previous number of choice.

Di Grassi's career as a race driver was by no means predestined. "I don't come from a motorsport family, but my uncle had a kart store in Interlagos – so I often spent time there and drove around," relates di Grassi. Various single-seater categories follow, as well as victory in the Macau Grand Prix in 2005, an overall runner-up finish in the GP2 series and in 2010 even a season in Formula One. In 2012, Lucas di Grassi becomes an Audi factory driver and mounts the podium three times in the famous 24 Hours of Le Mans alone.

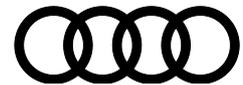
Lucas di Grassi has gone down in the history of the still young Formula E championship: In September 2014, he wins the first race ever in Beijing. After three seasons, he can look back on 20 podium finishes – a record number in the field. After finishing third overall in the first year and runner-up in the second year, the title follows in the 2016/2017 season. In the 2017/2018 season, di Grassi impresses with a unique fightback: After four races, he is still at the bottom of the table with zero points – then seven podiums (a record) follow in succession, including two victories, and in the end he even sensationally finishes the championship runner-up.

Outside the cockpit, Lucas di Grassi enjoys high recognition in the paddock: with the media as an authentic partner in interviews who rarely minces his words, with the fans because he fulfills nearly every wish for a photo or an autograph. And, last but not least, with the engineers of his team because he not only delivers strong racing results but, with his experience and precise statements, drives the development of the race car as well.



A passion for technology and innovations also determines Lucas di Grassi's personal life. He is enthusiastic about all types of technical gadgets, develops electric bicycles with his start-up business in Brazil and, since September 2017, has been CEO of Roborace – a company that aims to advance automated driving with an unmanned car and is also part of the supporting program of Formula E.

Lucas di Grassi and his wife, Bianca, live in Monaco, just 200 meters away from the start-finish straight of the famous Formula One and Formula E track. "I like the weather here on the Côte d'Azur, have ideal opportunities for sports and can quickly get to the airport. Since July 2018, the life of the record man has changed: His son, Leonardo, has been keeping the enthusiastic father on his toes quite a bit.



Biography

## **Lucas di Grassi (BR)**

**Date of birth:** August 11, 1984

**Place of birth:** São Paulo (BR)

**Residence:** Monaco (MC)

**Marital status:** married to Bianca, one son (Leonardo)

**Height/Weight:** 1.80 m/75 kg

**Motorsport debut:** 1997 (Audi driver since 2012)

### **Sporting career**

**1997–2001** Kart, Pan American Kart Champion (2000)

**2002** 2nd Brazilian Formula Renault Championship

**2003** 2nd South American Formula 3 Championship

**2004** British Formula 3 Championship, 3rd GP Macau, Formula 3 Masters

**2005** 1st GP Macau, 3rd Formula 3 Euro Series, 3rd Formula 3 Masters, Formula 1 test

**2006** GP2 Series, Formula 1 test

**2007** 2nd GP2 Series, Formula 1 test driver

**2008** 3rd GP2 Series, Formula 1 reserve driver

**2009** 3rd GP2 Series, Formula 1 reserve driver

**2010** Formula 1

**2011** Formula 1 tire test driver, ILMC tests

**2012** Formula 1 tire test driver, Nürburgring 24 Hours, 3rd WEC São Paulo (Audi R18 ultra)

**2013** 3rd Le Mans 24 Hours (Audi R18 e-tron quattro)

**2014** 2nd Le Mans 24 Hours, 4th FIA World Endurance Championship (WEC) (in Audi R18 e-tron quattro at each event)

**2015** 3rd FIA Formula E, 1 victory, 4th FIA World Endurance Championship (WEC) (Audi R18 e-tron quattro)

**2016** 2nd FIA Formula E, 3 victories, FIA World Endurance Championship (WEC), 1 victory, (Audi R18), 3rd Le Mans 24 Hours (Audi R18)

**2017** 1st FIA Formula E, 2 victories

**2018** 2nd ABB FIA Formula E (Audi e-tron FE04), 2 victories

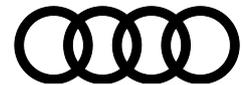
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Nico Müller (test and development driver)

## **The supporter behind the scenes**

**Since the beginning of season four, Nico Müller has been part of Audi's Formula E team as well: The Swiss supports the regular drivers, Daniel Abt and Lucas di Grassi, as test and development driver.**

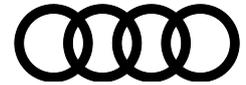
Müller is an all-round race driver who is fast and successful anywhere in motorsport. The Swiss is an Audi factory driver and actively engaged in racing, testing and development for the brand with the four rings in four different categories: DTM, GT endurance racing, the FIA World Rallycross Championship (World RX) and the ABB FIA Formula E Championship.

Nico Müller started racing in 2004, at the age of twelve, as a kart driver. From 2008 to 2013, he worked his way up in single-seaters, won a title and numerous races. In 2014, Müller joined Audi where he switched to touring and sports cars. In 2015, in an Audi R8 LMS, together with fellow drivers Christopher Mies, Edward Sandström and Laurens Vanthoor, he was the overall winner of the 24-hour race at the Nürburgring. Nico Müller won his first DTM race in 2016, in an Audi RS 5 DTM at the Norisring.

In the 2018 DTM season, Nico Müller assumed the role of team leader in Audi Sport Team Abt Sportsline. He succeeded two-time DTM Champion Mattias Ekström who ended his DTM career in winter of 2017/2018. As Ekström is absolutely convinced of Müller's driving skills, the Swede, since 2017, has repeatedly invited the Swiss to race as a guest for his World RX team. There Müller most recently proved his enormous versatility in the 2018 races in Riga at the wheel of the Audi S1 EKS RX quattro.

On making his first appearance in Formula E, Müller left a lasting impression as well. In the rookie test in spring of 2018 in Marrakesh, he achieved a dominant best time and set a new lap record in the Audi e-tron FE04. Müller contested further races in the 2018 season in the Audi R8 LMS GT3 race car. As a sports soldier in the Swiss Army Nico Müller stays fit at the national sports center Magglingen, the Olympic base of Swiss Ski.

"The opportunity to drive diverse race cars and competitions is huge fun," says the multi-talent from the Bernese Highlands. "Fortunately, I'm able to easily adjust to every car and, as a result, go to the limit on the race track."



Biography

## **Nico Müller (CH)**

**Date of birth:** February 25, 1992

**Place of birth:** Thun (CH)

**Residence:** Berne (CH)

**Marital status:** single (partner: Victoria)

**Height/weight:** 1.85 m/74 kg

**Motorsport debut:** 2004 (Audi driver since 2014)

**Sporting career:**

**2004–2007** Karting

**2006** 2nd Swiss Karting Championship (Junior category)

**2007** 1st Bridgestone Kart Cup (KF3 category)

**2008** 5th Formula Renault 2.0 Switzerland, 3rd Italian Formula Renault Winter Championship, best rookie

**2009** 1st Formula Renault 2.0 Switzerland, 11th Formula Renault Euro Cup

**2010** 3rd GP3 Series, best European driver

**2011** 4th GP3 Series

**2012** 9th World Series by Renault 3.5

**2013** 5th World Series by Renault 3.5

**2014** 19th DTM (Audi RS 5 DTM)

**2015** 21st DTM (Audi RS 5 DTM), 1st 24 Hours of Nürburgring (Audi R8 LMS)

**2016** 9th DTM (Audi RS 5 DTM), 1 victory

**2017** 12th DTM (Audi RS 5 DTM), 3rd 24 Hours of Nürburgring (Audi R8 LMS)

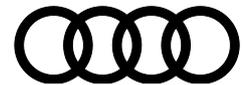
**2018** DTM (Audi RS 5 DTM)

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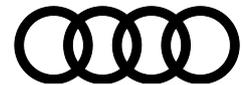


Statistics

## The Audi drivers in Formula E

	<b>Daniel Abt</b>	<b>Lucas di Grassi</b>
1st Formula E race	Beijing 2014	Beijing 2014
Races	45	45
Championship titles	0	1
Victories	2	8
Podiums	8	27
Points	287	611
Pole positions	2	3
Fastest laps	5	4
Starts from front row	3	10
Laps driven	1,615	1,673
Kilometers driven	3,808	3,905
Races with kms led	8	15
Leading laps	129	261
Km-distances led	289	600

*\* As of 2018/2019 pre-season*



Audi e-tron FE05

## **The new generation of the championship-winning car**

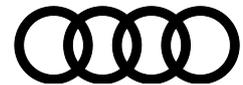
**Season five marks the beginning of a new era in the ABB FIA Formula E Championship: Thanks to the higher range of the vehicles the drivers will be racing in just one car for the first time.**

It is the most significant change Formula E has seen to date: For the first time since the series was launched in 2014, only one race car per driver will be used in the 2018/2019 season. The mandatory mid-race car swap is omitted because the battery capacity is now sufficient for the whole 45-minute race distance: proof of how motorsport – and Formula E in particular – is a driver of innovations and technologies.

With the Audi e-tron FE05 Audi meticulously prepared for the new technical and strategic challenges. This particularly applies to the centerpiece of the Audi e-tron FE05: the powertrain. It consists of the motor, inverter, transmission, parts of the rear suspension and the related software. Whereas the rest of the car is identical for all teams, the manufacturers demonstrate their technical expertise in the powertrain. In season four of the electric racing series, which in New York City in mid-July culminated in Audi Sport ABT Schaeffler's title win, the Audi e-tron FE04 was very often the most efficient car. The successor is the evolution of this success model.

Audi and technology partner Schaeffler jointly developed the motor-generator unit named Audi Schaeffler MGU03. The engineers mainly focused on making the package even more efficient than before and to further enhance energy conversion efficiency. "We have retained the basic one-speed transmission concept and at the same time subjected all the elements to further detailed development and manufactured them again from scratch," says Tristan Summerscale, Project Leader Formula E, at Audi. 95 percent of all powertrain components are new and the engineers managed to reduce weight by ten percent.

In the middle of 2017, in other words before the beginning of the most recent season four, Summerscale and his team began developing the Audi e-tron FE05. At the end of July 2018, the Fédération Internationale de l'Automobile (FIA) homologated the car. Now, modifications are no longer permitted. During the season, the developers are only allowed to continue to improve the software.



In Formula E season five, the motor's maximum power output in qualifying is limited to 250 kW (340 hp). In the races, power output is restricted to 200 kW (272 hp). The so-called activation zones are a new feature: When the driver passes through this zone on the track, the output of his car increases to 225 kW (306 hp) for a short period of time. Formula E fans are able to again support their favorite drivers by casting an online vote: The "FanBoost" provides a short-term power boost up to 250 kW (340 hp).

All Formula E teams draw their electric power from an identical, 374-kilogram battery from McLaren. The lithium-ion battery is located between the driver's seat and the powertrain, has a capacity of 52 kWh and is fully charged within 45 minutes. The brake-by-wire system is an all-new function for season five. Brake actuation and transmission of brake force to the rear axle are completely isolated from each other and electronically controlled. As a result, brake force distribution is always optimally adjusted and recuperation even more efficient.

Like in Formula One, the driver sits in a carbon fiber monocoque that has been developed according to FIA safety standards. CFRP crash structures at the front, rear and the sides ensure maximum safety. Plus – analogous to Formula One – the cars are equipped with a Halo system above the cockpit that provides additional protection to the driver's head. The minimum weight of a Formula E race car is 900 kilograms (including the driver). From 0 to 100 km/h the electric racing car accelerates in 3.1 seconds. Its top speed is about 240 km/h.

Particularly conspicuous is the fact that the new generation of the Audi e-tron FE05 does not have a rear wing – which is unique in motorsport. Instead, the large diffuser at the race car's rear generates downforce. "Batmobile," "Star Wars" and "space ship" were some of the expressions fans and media used in comments about the car's futuristic look following initial tests. "Driving between other cars on track makes me feel as if I were in a science fiction movie," says Daniel Abt. "Compared to its predecessor, the new model features a clearly more aggressive design."

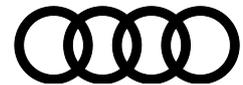


Technical data

## Audi e-tron FE05

As of: October 2018

Model	Audi e-tron FE05 (2018/2019)
<b>Vehicle</b>	Single seater (ABB FIA Formula E)
Vehicle type	Spec spark chassis in composite fiber construction made of carbon fiber with aluminum honeycomb core, tested for strict FIA crash and safety standards, front, rear and side crashers from CFRP, front and rear roll bars, additional HALO cockpit protection
Monocoque	Spec. spark carbon body, spec. aerodynamics
Body	
<b>Motor/battery</b>	
Motor Generator Unit (MGU)	Audi Schaeffler MGU03
Power output practice and qualifying	Max. 250 kW (340 hp)
Power output race	Max. 200 kW (272 hp)
Attack mode	Max. 225 kW (306 hp)
FanBoost	Max. 250 kW (340 hp)
Battery	Rechargeable Energy Storage System (RESS) from McLaren Applied Technologies, approx. 385 kg (wet) lithium-ion cells, usable battery capacity 52 kWh (regulations), charging time approx. 45 minutes
Motor controller	Bosch ECU
<b>Driveline/transmission</b>	
Type of drive	Rear-wheel drive
Transmission	High-efficiency 1-speed racing transmission
Drive shafts	Constant velocity joint shafts
<b>Chassis/steering/brakes</b>	
Steering	Rack-and-pinion steering, removable steering wheel with quick release, display, shift and rain paddles, plus FIA marshalling indicators
Suspension	Front and rear independent suspension on lower and upper steel wishbones, pushrod system, front torsion bars, rear spring suspension, two shock absorbers front and rear, adjustable stabilizers front and rear, adjustable ride height, toe and camber, two wheel retention tethers per wheel
Brakes	Hydraulic dual-circuit brake system, light metal calipers, front and rear carbon fiber brake discs, adjustable brake force distribution
Rims	Aluminum rims, front 9 x 18 inch and rear 11 x 18, minimum weight per wheel front 6 kg, rear 7 kg
Tires	Profiled road-like tires, specially developed for Formula E, Michelin Pilot Sport, front 245/40 R18, rear 305/40 R18
<b>Weight/dimensions</b>	
Length	Max. 5,200 mm
Width	Max. 1,800 mm
Height	Max. 1,250 mm
Wheelbase	Max. 3,100 mm
Minimum weight	900 kg (incl. driver)
<b>Performance</b>	
0-100 km/h	approx. 2.8 seconds
Top speed	240 km/h



Interview with Team Principal Allan McNish

## **“It’s a luxury to have two such fast and aggressive drivers in the team”**

**The team principal of Team Audi Sport ABT Schaeffler about his responsibilities, the special features of Formula E and the new Audi e-tron.**

### **Formula E champion – how does that sound to you?**

Sounds pretty cool, doesn't it? It's great what we've achieved. But for me, it's much more important how we had to achieve it: It wasn't by desire, that's for sure if you look at the start of the season, but it was by great morale and a fantastic fight-back from both of our drivers and the team. This is something I will for sure never forget.

### **Twelve points after four races into the season – what were you thinking at that time?**

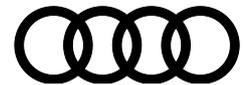
I remember walking out of the paddock in Santiago after another race with zero points. Daniel got hit on the first lap and Lucas had to stop with an inverter problem. It looked as if all the potential we'd seen in pre-season testing was just slipping away and so was the championship. At that moment, I'd have never ever thought that we'd keep the championship fight open until the last race or even win the title at the end.

### **What have been your biggest challenges as team principal in Formula E?**

Coming into this position in Audi's first year in Formula E was definitely a learning process. And it started off with the big challenge of keeping everybody in the team focused when we experienced tough times like we did in Marrakesh or Santiago. I've been in motorsport for quite a while and I know that sometimes you can try whatever you want and things just go wrong. But there's always a switchover point and we had to make sure that everyone kept his eyes on the goal. The team and the drivers were nothing but exceptional in the second half of the season. They definitely made my life much easier then.

### **What would you call your best decision in your new role?**

Well, the best personal decision I made was to take the role because I am really enjoying it every day. One of the best decisions we made as a team, no doubt, was to confirm and give Daniel the opportunity to prove his performance as an Audi factory driver. He grew up a lot, he showed the speed he had before but he also showed the experience that he had gained. I am pleased that we were able to give him a good car with outstanding support from the trackside engineers. I am sure he will build up on



that confidence and make another big step next year. The two race wins to his credit are just the beginning.

**And what would you write into Lucas di Grassi's school report after this season?**

Being on the podium seven times in a row once we got rid of the technical problems clearly shows his level of performance and consistency. The year probably started off in the worst way possible for Lucas and our team and ended with more podiums in one season than any other team in the history in Formula E. And I think we all agree that the competition was really tough with a lot of great drivers and excellent teams out there. Even so, Lucas stood out once again. Whoever takes the big trophies for drivers' and teams' titles in New York thoroughly deserves them.

**How do you deal with the situation that Daniel is now increasingly becoming the challenger of his more experienced teammate, Lucas?**

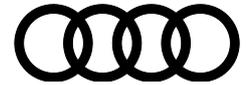
For me the way to look at it is very simple: We need to have two fast, aggressive, hard-charging drivers and we need to have cars that deliver race wins. If we have all that, we have the chance of taking some titles. If we don't, we don't. And then sometimes we might have the occasion that the two guys are at the same place at the same time and unfortunately in motorsport only one can win. I much prefer to have a situation like this than not be competitive at all. From my perspective, it's a luxury to have two drivers and a team that are so passionate – and able – to win. Daniel stepped up very well. Now Lucas and he are pushing each other and that is exactly what we want and need.

**How do you rate the development in Formula E – considering it's still kind of a start-up?**

I was not an instant believer that the championship would flourish to the same level it has. Mainly because I've seen a lot of championships come and go in the first couple of years. Formula E has been able to get that momentum much more than I, plus 95 percent of the motorsport community, expected. Now, Formula E has to ensure that it stays clear with its DNA – and that is city street racing, taking the racing to the fans, close and hard competition, focus and the efficiency of electric drivetrains. At the same time, the series needs to evolve with new technologies and make sure that it stays the exciting Formula E that we have today. I don't think Formula E should compete with Formula One. It should make its own road and follow it.

**What do you expect from the future now with more big players like BMW, Mercedes and Porsche joining?**

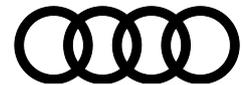
It's not that the competition is low at the moment, but I think it will get even more intense. Right now, you have quite a consistent grid in Formula E and you can roughly work out which circuit is going to be strong for which team. When the other



manufacturers step in we might have a bigger fluctuation through the course of the season with guys at the front in one race and at the back in the next one. I can only see it strengthening the competitive element of the series. It will be harder to get a consistent season together for everyone which is great news for the fans and a tough story for the teams. But that makes victories even sweeter in the future.

**How do you like the new Audi e-tron for the road?**

At Audi, motorsport has always been a pioneer for new technologies. That was the same with all our programs in the past. e-tron technology was successfully used at Le Mans since 2012. Now it's in Formula E and will be on the road for our customers later this year. This again shows how Audi develops production cars using the valuable experiences from racing. I've personally put my name down for an Audi e-tron and hope to get it as soon as possible.



Audi Sport

## Vorsprung durch Motorsport

**For nearly 40 years, Audi Sport has stood for the successful motorsport involvement of AUDI AG. By now, the Ingolstadt brand is selling the sportiest Audi models and accessories under the Audi Sport label as well.**

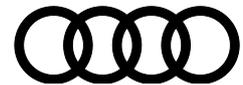
The first motorsport activities of the Audi brand that was still young in those days took place at the end of the 1970s, billed as Audi Motorsport. When the brand entered the World Rally Championship the motorsport department was renamed Audi Sport in 1980 and the first Audi Sport logo created.

Even at that time, factory-backed motorsport was part of Technical Development. This close connection guarantees the technology transfer between motorsport and production which has traditionally been a key reason for Audi to be active in top-caliber motorsport. In Formula E, Head of Audi Motorsport Dieter Gass's team closely works together with its colleagues from production development and other functions of Technical Development.

Since August 2014, the Audi motorsport department has been headquartered at the Competence Center Motorsport in Neuburg an der Donau. The Formula E race cars are developed in the modern complex of buildings by Audi engineers as well. In addition to test benches and a race track simulator, Team Audi Sport ABT Schaeffler uses the track in Neuburg for rollouts and functional checks. The new Audi e-tron FE05 did its first laps in Neuburg too.

For 2019, Audi's motorsport program consists of Formula E, the DTM and customer racing which is also based in Neuburg. Audi Sport customer racing is currently offering customers GT3 and GT4 versions of the Audi R8 LMS and the Audi RS 3 LMS TCR touring car.

Audi markets the production Audi R8 and the Audi RS models under the Audi Sport brand name as well. quattro GmbH, which had been registered as a manufacturer of high-performance automobiles since 1996, was renamed Audi Sport GmbH at the end of 2016. The company's slogan "Born on the track" clearly shows the origin of the genes of the sportiest Audi models – racing.



ABT

## **Audi partner on the road and race track**

**The family business ABT Sportsline and the brand with the four rings have known and valued each other for many decades. Backed by Audi as a strong partner, ABT pursues the maxim of being better than the competition – both on the road and the race track.**

Founded in 1896 as a smithy, the company in the German Allgäu region, now being run in the fourth generation by Hans-Jürgen Abt, has evolved into the world market leader for tuned automobiles from the Volkswagen Group and is represented in more than 60 countries. The founder's grandson, Johann Abt, a very successful race driver with more than 300 victories under his belt, brought motorsport into the company about seven decades ago. Since then, the know-how from the race track has been inspiring vehicle tuning as well. A few years ago, a third pillar was added: electric mobility.

As early as at the end of the 1990s, ABT Sportsline relied primarily on Audi in motorsport. The first major success achieved under the banner of the four rings was the German Super Touring Car Championship (STW) win with the Audi A4 quattro. From 2000 to 2003, the family-owned business ABT based in Kempten in the Allgäu competed in the DTM as a privateer team and in 2002 even clinched the title. In 2004, ABT Sportsline became an Audi factory team and has since taken four further drivers' titles. From 2014 to 2017, ABT, as the privateer Team ABT Schaeffler Audi Sport, was active in Formula E and in 2017 celebrated the drivers' title with Lucas di Grassi.

### **Major motorsport successes of ABT Sportsline**

**1st Formula E drivers' classification: 2016/2017**

**2nd Formula E teams' classification: 2016/2017**

**1st Formula E teams' classification: 2017/2018 (Audi)**

**2nd Formula E drivers' and teams' classification: 2015/2016**

**3rd Formula E drivers' and teams' classification: 2014/2015**

**1st DTM drivers' classification: 2002, 2004, 2007, 2008, 2009 (all Audi)**

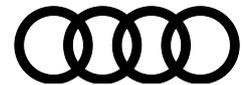
**1st DTM teams' classification: 2004, 2007, 2011, 2016 (all Audi)**

**1st German Supertouring Championship: 1999 (Audi)**

**1st ADAC GT Masters: 2009 drivers', 2010 teams' classification (both Audi)**

**1st ADAC Formel Masters: 2009**

**1st ADAC Formula Junior: 1991, 1992, 1996**



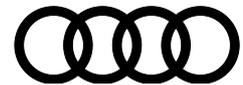
Schaeffler

## **Actively shaping mobility for tomorrow**

**Motorsport has always been a driver of developments that later make their way into production vehicles – this is also true in Formula E where Schaeffler is gaining extensive findings through its successful commitment. The technology group uses them to advance innovative developments for electrified and connected mobility for tomorrow.**

Having partnered with ABT Sportsline since the 2014/2015 Formula E inaugural season, Schaeffler underlines its position as a pioneer in electric mobility as well. Since the technical regulations have opened up new opportunities, specialists from Schaeffler have been involved in the development of the powertrain. The title wins in the 2016/2017 and 2017/2018 season are proof of the work accomplished so far. Following Audi's entry into Formula E with a factory-backed commitment, Schaeffler is now contributing its know-how to the technology cooperation with the premium brand. The partnership includes the joint work on the electric motor, transmission, suspension and power electronics for the powertrain.

Just like Schaeffler has been contributing its technological expertise to Formula E since day one, the technology group has been and intends to remain a pioneer in electric mobility for the road as well. That is why, in the more recent past, the company has doubled the size of its development team for the electrification of the powertrain. But even today, Schaeffler – also inspired by the technology transfer from the race track – is offering a wide range of products for electric mobility and the electrification of powertrains using internal combustion engines. In parallel, the number of customer projects and production orders in the Automotive Division is steadily increasing in the field of electric mobility. “In Formula E, we're able to explore extremes. This helps us in many respects – in terms of general systems understanding as well as in the development of new materials. Or in gaining new findings regarding the recuperation of braking energy or thermal management,” says Prof. Peter Gutzmer, Deputy CEO and Chief Technology Officer of Schaeffler AG. “In addition, motorsport is emotion – and that's what we need in electric mobility too.” That Formula E races in the hearts of major metropolises reflects the global trend toward urbanization. An aspect that just like electrification and connected vehicles plays an important part at Schaeffler in the development of future mobility technologies.



Envision Virgin Racing

## **Audi supplies e-tron FE05 to Virgin Racing**

**In addition to its own factory team, Audi Sport equips the British racing team Envision Virgin Racing with its newly developed Audi e-tron FE05 including the powertrain.**

“We’re delighted to be battling for points and trophies in the new Formula E season together with Virgin Racing and as many as four Audi e-tron FE05 cars in the field,” says Head of Audi Motorsport Dieter Gass. “The team has been one of the key players ever since Formula E was founded – both in terms of its performances in racing and all off-track activities, which makes Virgin Racing’s choice of our technology a particular pleasure. This confidence also confirms the excellent work done by our engineers together with their colleagues from our development partner, Schaeffler.”

The Audi e-tron FE05 is the evolution of a success model. Its predecessor was the most efficient car in many of the races in season four, highlighted by the win of the teams’ championship by the Audi Sport ABT Schaeffler factory team in New York City in mid-July.

The centerpiece of the new Audi e-tron FE05 that Team Virgin Racing will be using in the future as well is the powertrain centered on the Audi Schaeffler MGU03 motor-generator unit. While the rest of the car is specified for all teams the manufacturers demonstrate their technical expertise in the powertrain. The Formula E regulations require manufacturers to make the entire car including the individual powertrain technology and associated support available to other teams as well at a defined price.

The new cooperation, however, does not end with the delivery of the race cars. During the season, there will be a viable competition between the teams in order to continuously increase the performance level.

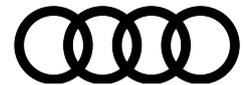


ABB FIA Formula E Championship

## **When a vision becomes reality**

**Formula E establishes a new era in motorsport: fully electric in the middle of the world's most fascinating metropolises and with a race format that has been unique in the world to date. This concept thrills manufacturers, teams, fans, media and drivers alike. The road map for the future has been created.**

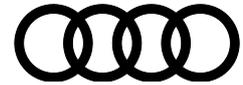
When Formula E presented its race car for the first time at the International Motor Show (IAA) in Frankfurt in fall of 2013 its founder, Alejandro Agag, and FIA President Jean Todt were confronted with major skepticism: Can an electric racing series that holds its events in the middle of the city, pursuing completely new avenues, really work? Will there be teams, sponsors and drivers whose enthusiasm is sparked for this new type of motorsport?

Five years later, the answer is clear: With manufacturers like Audi, BMW, DS, Jaguar or Nissan, plus numerous global players as sponsors and rapidly growing worldwide popularity Formula E has evolved into one of the absolute hot spots in the motorsport world. For season six that will begin in the late fall of 2019, Mercedes and Porsche have already announced their entry.

“Obviously, this is the kind of development we were hoping to see a few years ago but, honestly speaking, did not expect so soon,” says Alejandro Agag, the founder and CEO of Formula E which is based in London. Together with FIA President Jean Todt the Spaniard managed to inspire the enthusiasm of renowned racing teams, series partners and sponsors for their idea of a new motorsport era.

The main reason for this is that from the outset there have been many things that Formula E does that differ from traditional racing series. They include an anticyclical race calendar starting in late fall or early winter and extending into the summer of the following year. Instead of on permanent race tracks, which are typically located far away from urban centers, Formula E races near-exclusively on temporary city street circuits. The venues read like a “Who is Who” of the most fascinating metropolises: Hong Kong, Mexico City, Paris, Berlin, Rome and New York City are just some of the examples of the current cities.

The spectators witness motorsport at close range in Formula E, presented in a compact, modern format. They arrive at the race track on foot, by bicycle or public transportation and within the space of a few hours experience an intensive program. Free practice, qualifying and the race are held in near-immediate succession. During

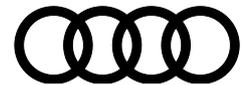


the few breaks in between, the drivers go for autograph sessions or interviews to the E-Village where Formula E presents numerous attractions centered on electric mobility and future technologies to visitors as well.

Compared with other racing series such as Formula 1, Formula E is still a very young project, albeit one with a clear strategy for the future. To keep the series attractive and affordable, the promoter and the FIA have developed a binding road map that clearly defines the “guard rails” for the next few years. The objective is to ensure that even as the number of participating manufacturers increases two things will always take center stage without causing budgets to grow too much: the sport and developments that are exclusively relevant for transfer into production.

Consequently, central elements such as the chassis, battery, tires or brakes will remain specification parts for all teams and manufacturers in the next few years. Only the powertrain – consisting of the motor, transmission, parts of the suspension and the respective software – will continue to be open to proprietary developments. In addition, parameters such as the permitted power output in qualifying and the race or maximum permissible recuperation will successively increase. The road map is binding for at least the next five years, giving all the players planning certainty.

Formula E underpins its claim of being an innovative racing series with a young target group through its public relations activities as well. Together with teams and drivers, no other comparable series is equally active in various social media channels. The involvement of the fans culminates in FanBoost, a gimmick that is unique in international high-performance sports. In an online voting on the official website or Twitter, the three most popular drivers in the race receive a power boost for their overtaking maneuvers that may decide the outcome.



Regulations

## How Formula E works

### Format of a race weekend

Shakedown	(Day before the race) 30 minutes, six laps per driver, 110 kW
Free practice 1	45 minutes, 250 kW
Free practice 2	30 minutes, 250 kW
Qualifying	4 groups, 6 minutes each (only one timed lap per driver with 250 kW)
Super Pole	One lap each for the fastest 6 drivers, 250 kW
Race	45 minutes plus one lap

Double header events are held on two days. Each race day is treated like an individual E-Prix.

### Practice

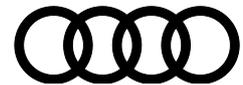
There are two free practice sessions on each race day during which the full power output of 250 kW may be used. At double header events, only one 45-minute free practice session is held on race day 2.

### Qualifying

The 22 drivers are divided into four groups according to the current championship standings. The order of the outings for the individual groups is determined by drawing lots. Per group six minutes are available for achieving the best possible time. Following the so-called outlap from the pit lane and one or two warm-up laps with power output of 200 kW, a single “flying lap” can be driven at full power of 250 kW. The six fastest drivers, irrespective from which group, participate in the Super Pole shootout in which every driver sets one more timed lap at full power (250 kW). The order of the starting grid is determined by the lap times set in the Super Pole shootout (positions 1-6) and the group phase (positions 7-22).

### E-Prix

The race – or E-Prix – begins with a standing start (no formation lap). The drivers initially line up on a dummy grid a few meters behind the actual grid and then file into position for the race start. The race lasts 45 minutes plus one lap. For the 2018/2019 season, the maximum power output increases from 180 kW to 200 kW.



### **Attack Mode**

New in season 5 is the so-called activation zone: When the driver passes this zone on the track the output of his car is briefly boosted to 225 kW (306 hp). The number of activations and their duration is individually set for each race and announced by the FIA prior to the start of the race.

### **FanBoost**

Formula E fans are able to support their favorite driver with an advantage in the race. To do so, they can begin to vote six days before the race and up until 15 minutes into the race via Twitter, the official Formula E website ([fanboost.fiaformulae.com](http://fanboost.fiaformulae.com)) and the Formula E app. The five drivers with the largest number of votes will receive the so-called FanBoost. It can only be activated once after 22 minutes of racing and briefly boosts power output to 250 kW.

### **Points**

The top ten of each race are awarded points according to the official FIA system analogous to Formula One and DTM:

Position 1	25 points	Position 6	8 points
Position 2	18 points	Position 7	6 points
Position 3	15 points	Position 8	4 points
Position 4	12 points	Position 9	2 points
Position 5	10 points	Position 10	1 point

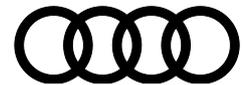
For pole position, three additional points are awarded. The driver setting the fastest race lap is awarded one additional point if he finishes in the top ten and has not used the FanBoost on his fastest lap.

### **Championship**

Formula E consists of both a drivers' and a teams' championship. The end-of-season totals of the drivers are made up of their results in the races. The points scored by both drivers of a team are totaled throughout the season for the teams' championship.

### **Tires**

Michelin, the official tire supplier, provides each driver with four new front and four new rear tires per race day. The tires are profiled.



2018/2019 season

## **World tour of five continents**

**Europe, Asia, North and South America, and Africa: From December to July the Formula E circus goes on a big tour around the world. 13 races in 12 metropolises are on the calendar. For the first time, the season will open in Saudi Arabia.**

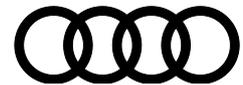
Beijing and Hong Kong twice – whereas Formula E previously kicked off its season in the Far East on each occasion, Saudi Arabia now provides the setting for the opening event. Ad Diriyah on the outskirts of Riyadh has moved onto the calendar – a premiere for Formula E and the capital city of the up-and-coming kingdom.

For season five, the organizers again managed to put together an exciting mix of temporary city street circuits. The only exception is Mexico City where Formula E uses a part of the Formula One circuit – including the stadium with an atmosphere that is arguably unique in the motorsport world.

Following another visit to the special administrative region of Hong Kong, that will take place in March this time, Formula E will return to China as well. Sanya, a city on the southern tip of the Chinese island of Hainan, is making its debut as a venue of an electric auto race.

In April 2019, Formula E will travel to Europe: Whereas Rome, Paris and Berlin have become fixtures on the calendar the series will race in the streets of Monaco again as well in accordance with the scheduled two-year interval. This event is also a home round for Audi driver Lucas di Grassi. Di Grassi, whose adopted country is Monaco, lives almost directly alongside the start-finish straight at the marina with his family.

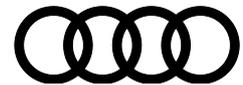
New York City will be the venue of the finale again. The only double-header, i.e. two races on a single weekend, of the year will be held in the streets of Brooklyn in mid-July. In each of the first four Formula E seasons, the championship was only decided on the last weekend and on three occasions even only in the last race.



Calendar

**2018/2019 Formula E events**

December 15, 2018	Ad Diriyah (KSA)
January 12, 2019	Marrakesh (MA)
January 26, 2019	Santiago de Chile (RCH)
February 16, 2019	Mexico City (MEX)
March 10, 2019	Hong Kong (HK)
March 23, 2019	Sanya (CN)
April 13, 2019	Rome (I)
April 27, 2019	Paris (F)
May 11, 2019	Monaco (MC)
May 25, 2019	Berlin (D)
June 22, 2019	Bern (CH)
July 13, 2019	New York City (USA)
July 14, 2019	New York City (USA)



Race 1

## **Ad Diriyah (KSA)**

### **Facts and figures**

Date: December 15, 2018

Track name: Ad Diriyah Street Circuit

Track length: 2.495 kilometers

Turns: 21

First race in Ad Diriyah

### **Daniel Abt about the race**

“A new location, new cars, new drivers and new regulations – the opening round of season five marks the beginning of a new era in Formula E in many respects.”

### **Formula E in Ad Diriyah**

For the first time in four years, the Formula E season opener does not take place in the Far East: After two occasions in Beijing and two in Hong Kong, Ad Diriyah is hosting the first race in season five. The suburb northeast of the capital city, Riyadh, is regarded as one of the cultural centers of the country, Saudi Arabia, and as the originating cell of the kingdom. On Sunday after the race, the teams will have the opportunity of testing for one day.

Race 2

## **Marrakesh (MA)**

### **Facts and figures**

Date: January 12, 2019

Track name: Circuit International Automobile Moulay El Hassan

Track length: 2.971 kilometers

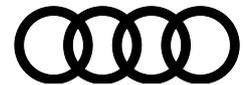
Turns: 12

Previous winners: Sébastien Buemi (2016), Felix Rosenqvist (2018)

Best result Audi Sport ABT Schaeffler: 5th Position, Lucas di Grassi (2016)

Lap record, qualifying: Felix Rosenqvist, 1m 20.115s (2018)

Lap record, race: Loïc Duval, 1m 22.600s (2016)



### **Daniel Abt about the race**

“The Marrakesh E-Prix is the only Formula E race held in Africa. In terms of its flair, culture and people, Marrakesh differs a lot from other events. We race on a permanent track which is similar to a city circuit, though. There are many walls you should stay clear of and some of the hotels are located within the circuit.”

### **Formula E in Marrakesh**

Morocco appeared on the calendar for the first time in season three. The race was integrated in the UN Climate Conference, “COP22,” that was held in the Marrakesh at the same time and, consequently, attracted a lot of attention. The circuit on the outskirts of the fascinating North African metropolis features a mix consisting of a permanent race track and public roads. Popular with photographers are some perspectives from which the snow-covered Atlas Mountains can be seen in the background.

### Race 3

## **Santiago de Chile (RCH)**

### **Facts and figures**

Date: January 26, 2019

Track name: Parque O'Higgins

Previous winners: Jean-Eric Vergne (2018)

Best result Audi Sport ABT Schaeffler: –

Lap record, qualifying: André Lotterer, 1m 18.796s (2017)

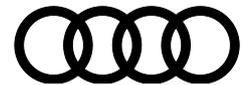
Lap record, race: Sam Bird, 1m 20.235s (2017)

### **Lucas di Grassi about the race**

“Having this event in South America means a lot to me. Santiago de Chile is only a four-hour flight from my native city, São Paulo. After zero points at the inaugural event, we definitely still have a score to settle with this race.”

### **Formula E in Santiago de Chile**

In 2019, fans will witness Formula E's second visit to Santiago de Chile. The circus, however, will move from the area around Plaza Baquedano to Parque O'Higgins, located a little further south in the heart of the city. In the 2017/2018 season, Daniel Abt and Lucas di Grassi experienced the season's low point when both retired through no fault of their own.



## Race 4

### **Mexico City (MEX)**

#### **Facts and figures**

Date: February 16, 2019

Track name: Autódromo Hermanos Rodríguez

Track length: 2.093 kilometers

Turns: 18

Previous winners: Jérôme D'Ambrosio (2016), Lucas di Grassi (2017), Daniel Abt (2018)

Best result Audi Sport ABT Schaeffler: 1st position, Lucas di Grassi (2017), Daniel Abt (2018)

Lap record, qualifying: Felix Rosenqvist, 1m 01.645s (2018)

Lap record, race: Lucas di Grassi, 1m 02.202s (2018)

#### **Daniel Abt about the race**

“Mexico will always have a place in my memories because that’s where, in season four, I scored my first Formula E victory. The Mexican fans are simply incredible and the atmosphere in the stadium is unique in motorsport – we can even hear the fans cheering us on from the grandstands during the race.”

#### **Formula E in Mexico City**

The race in Mexico is one of the highlights on the calendar, especially for Team Audi Sport ABT Schaeffler. Although it is the only real permanent race track during the season the drivers love the circuit – particularly due to the unique atmosphere in the stadium-like section. Daniel Abt celebrated his first Formula E victory in Mexico last season and was celebrated by thousands of enthusiastic fans.

## Race 5

### **Hong Kong (HK)**

#### **Facts and figures**

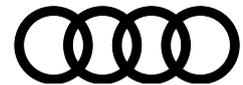
Date: March 10, 2019

Track name: Hong Kong Central Harbourfront Circuit

Track length: 1.86 kilometers

Turns: 10

Previous winners: Sébastien Buemi (2016), Sam Bird (2017), Felix Rosenqvist (2017)



Best result Audi Sport ABT Schaeffler: 2nd position, Lucas di Grassi (2016)  
Lap record, qualifying: Mitch Evans, 1m 02.577s (2017)  
Lap record, race: Felix Rosenqvist, 1m 02.947s (2016)

#### **Lucas di Grassi about the race**

“Hong Kong is fantastic. Standing in the pit lane between the illuminated high-rise buildings and the famous Ferris wheel is an awesome feeling. The race track has a very long straight with good overtaking opportunities. It’s followed by a technically very challenging part with many tight turns. Also, the surface keeps alternating between tarmac and concrete.”

#### **Formula E in Hong Kong**

For the first time, it is not the venue of Formula E’s season opener but hosting a mid-season race. Hong Kong arguably offers the glitziest setting for a Formula E race: The paddock and race track are located directly in the heart of the city along the water front surrounding the famous Ferris wheel. The circuit is narrow and challenging, just the way Daniel Abt and Lucas di Grassi like it: both have been on podium in Hong Kong before.

#### Race 6

## **Sanya (CN)**

#### **Facts and figures**

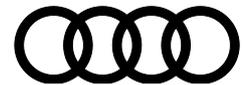
Date: March 23, 2019

#### **Daniel Abt about the race**

“A race in the middle of a tourist resort with white sandy beaches – Formula E keeps coming up with exceptional locations. It’s great to have another round in China because we’ve always received a warm and enthusiastic welcome there.”

#### **Formula E in Sanya**

On visiting Sanya, Formula E returns to China. Previously, in the first two years, Beijing hosted a race and afterward the Hong Kong special administration region took over the Asian venue on the calendar. Sanya, located on the southern tip of Hainan Island, with its sandy beaches is regarded as a popular holiday resort: in 2017, some 18 million tourists visited the region.



Race 7

## **Rome (I)**

### **Facts and figures**

Date: April 13, 2019

Track name: Circuito Cittadino Dell'EUR

Track length: 2.860 km

Turns: 21

Previous winners: Sam Bird (2018)

Best result Audi Sport ABT Schaeffler: 2nd position, Lucas di Grassi (2018)

Lap record, qualifying: Felix Rosenqvist, 1m 36.311s (2018)

Lap record, race: Daniel Abt, 1m 37.910s (2018)

### **Lucas di Grassi about the race**

“Before our race last season, Pope Francis during an audience also blessed our son, Leo, who was born three months later – an unforgettable experience. Italy is like a second home for me. My grandparents were born there. I have an Italian passport and plenty of Italian blood running in my veins. The whole event in Rome is outstanding.”

### **Formula E in Rome**

Rome in season four celebrated its Formula E premiere – and what a premiere it was: Before race day, Pope Francis received all the drivers for a private audience at the Vatican. Although the cars are not racing around the famous Colosseum but through the district of the World Exhibition (Esposizione Universale di Roma, abbreviated EUR) – with its mix of historic and modern buildings the Roman flair can be felt at all times.

Race 8

## **Paris (F)**

### **Facts and figures**

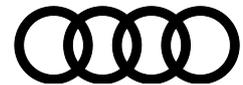
Date: April 27, 2019

Track name: Circuit des Invalides

Track length: 1.92 kilometers

Turns: 14

Previous winners: Lucas di Grassi (2016), Sébastien Buemi (2017), Jean-Eric Vergne (2018)



Best result Audi Sport ABT Schaeffler: 1st position, Lucas di Grassi (2016)  
Lap record, qualifying: Jean-Eric Vergne, 1m 01.144s (2018)  
Lap record, race: Nick Heidfeld, 1m 02.323s (2016)

#### **Lucas di Grassi about the race**

“This location is one of the most beautiful ones of all: I doubt that anyone could have imagined that motorsport would ever include a race not far from the Eiffel Tower. But Formula E made it happen. The race track is very technically challenging. There are only few overtaking opportunities. In 2016, I won the first ever Paris E-Prix, so I always return there with a good feeling.”

#### **Formula E in Paris**

Even on the day before the race, sightseeing buses still pass through the pit lane and then Formula E starts its round in France’s capital. The circuit is routed around the Dôme des Invalides that houses Napoleon’s tomb. The Eiffel Tower, the Avenue des Champs-Élysées and the Seine River are located in close proximity – there is no other place that is deeper in the heart of the city. Lucas di Grassi has already entered his name in the history books on clinching victory at the premiere in Paris in his 2016/2017 championship-winning season.

#### Race 9

### **Monaco (MC)**

#### **Facts and figures**

Date: May 11, 2019

Track name: Circuit de Monaco

Previous winners: Sébastien Buemi (2015), Sébastien Buemi (2017)

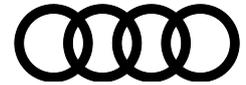
Best result Audi Sport ABT Schaeffler: 2nd position, Lucas di Grassi (2015, 2017)

Lap record, qualifying: Jean-Eric Vergne, 52.386s (2017)

Lap record, race: Sam Bird, 53.822s (2017)

#### **Lucas di Grassi about the race**

“Monaco is my home round. I live almost directly alongside the start-finish straight. The track runs along the route I use on my morning runs and past my favorite sushi restaurant. Twice I finished runner-up here and obviously scoring a victory on my ‘home turf’ is a small dream of mine.”



### **Formula E in Monaco**

Monaco is part of the calendar every two years, alternating with the historic Grand Prix. In seasons one and three, Formula E used a short version of the Formula One circuit and both times Lucas di Grassi was on podium – or more precisely in the Prince’s lounge – as runner-up. Perhaps this has to do with his home advantage: the distance between the doorstep of the Brazilian who lives in the principality with his wife and son and his race car is a mere 350 meters.

### Race 10

## **Berlin (D)**

### **Facts and figures**

Date: May 25, 2019

Track name: Tempelhof

Track length: 2.377 kilometers

Turns: 10

Previous winners: Jérôme D’Ambrosio (2015)<sup>2</sup>, Sébastien Buemi (2016)<sup>1</sup>, Felix Rosenqvist (2017)<sup>2</sup>, Sébastien Buemi (2017)<sup>2</sup>, Daniel Abt (2018)

Best result Audi Sport ABT Schaeffler: 1st position, Daniel Abt (2018)

Lap record, qualifying: Daniel Abt, 1m 09.472s (2018)

Lap record, race: Daniel Abt, 1m 12.409s (2018)

<sup>1</sup>Race in downtown Berlin

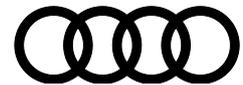
<sup>2</sup>Race on another configuration of the Tempelhof Circuit

### **Daniel Abt about the race**

“Berlin is my home race, which makes it the big highlight on the calendar for me. Friends, family, partners, sponsors – they’re all there, cheering me on. The support of the fans is unique and makes even the days before the race very special. Last season, on clinching pole position and victory in Berlin, I experienced the sweetest day in my motorsport career to date.”

### **Formula E in Berlin**

Berlin is the only city to appear on the Formula E calendar in all five seasons. With one exception the race has always been and continues to be held at the former Tempelhof airport that perfectly fits Formula E with its historic backdrop and compact premises. As far as Team Audi Sport ABT Schaeffler goes: in 2018, Daniel



Abt and Lucas di Grassi achieved a day that has been unique to date: victory, 2nd place, pole position and fastest race lap.

### Race 11

## **Bern (CH)**

### **Facts and figures**

Date: June 22, 2019

### **Lucas di Grassi about the race**

“By returning to Switzerland Formula E made history last season – that’s why my victory there has an especially great significance for me. The enthusiasm in Zurich was enormous. Now we’re visiting the fans in the capital city, Bern – it’s great that in Nico Müller we have someone on the team who helps us with Swiss-German.”

### **Formula E in Bern**

Grüezi (hello), Bern. After Zurich, now, in season five, the capital city is the venue of the Formula E round. Last year, on the shore of Lake Zurich, an international circuit race was held in more than six decades that Lucas di Grassi won.

### Races 12 + 13

## **New York City (USA)**

### **Facts and figures**

Date: July 13/14, 2019

Track name: Brooklyn Circuit

Track length: 2.373 kilometers

Turns: 14

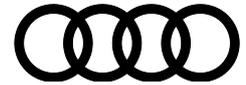
Previous winners: Sam Bird, Sam Bird (2017)<sup>1</sup>, Lucas di Grassi (2018), Jean-Eric Vergne (2018)

Best result Audi Sport ABT Schaeffler: 1st position, Lucas di Grassi (2018)

Lap record, qualifying: Sébastien Buemi, 1m 13.911s (2018)

Lap record, race: Felix Rosenqvist, 1m 14.663s (2018)

<sup>1</sup>Race on another configuration of the Brooklyn Circuit

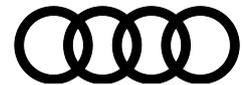


**Daniel Abt about the races**

“There’s no need to say a lot about New York. It’s one the world’s most important cities. All the races held there so far have been special – obviously, above all, the two rounds last season that were about the title win. The track is very narrow and in some of the turns traffic in the race gets extremely congested – especially right after the start. It’s not easy to overtake there without occasional brief contact.”

**Formula E in New York City**

As in season four, New York City is again the venue of the season’s finale. It is also the only location on the calendar to host a double header, in other words two rounds on a single weekend. The track is located in Brooklyn and offers an impressive view of the Manhattan skyline. In the previous four seasons, all title decisions in Formula E were only produced on the last race weekend.



Statistics

## Formula E facts and figures

### General

Seasons: 4

Races: 45

Race tracks used: 17

Fewest vehicles classified in a race: 13

Biggest advantage in a race: 13.884 seconds

Smallest advantage in a race: 0.106 seconds

### Drivers (top three respectively)

Most titles: Sébastien Buemi, Lucas di Grassi, Nelson Piquet jr. and Jean-Éric Vergne, 1 each

Most victories: Sébastien Buemi 12, Lucas di Grassi 8, Sam Bird 7

Most podium finishes: Lucas di Grassi 27, Sébastien Buemi 21, Sam Bird 15

Most pole positions: Sébastien Buemi 10, Jean-Éric Vergne 8, Felix Rosenqvist 6

Most fastest race laps: Sébastien Buemi 7, Sam Bird and Daniel Abt je 5, Nelson Piquet and Lucas di Grassi, je 4

### Champions

Lowest age: 27 years, 7 months, 3 days (Sébastien Buemi 2015/2016)

Highest age: 32 years, 11 months, 18 days (Lucas di Grassi 2016/2017)

Biggest advantage: 54 points (198:144 Jean-Éric Vergne – Lucas di Grassi, 2017/2018)

Smallest advantage: 1 point (144:143 Nelson Piquet jr. – Sébastien Buemi, 2014/2015)

Highest win rate: 33 % (Jean-Éric Vergne 2017/2018, 4 victories in 12 races)

Title without pole position: Nelson Piquet jr. 2014/2015

Title without fastest race lap: Lucas di Grassi 2016/2017, Jean-Eric Vergne 2017/2018

Championships decided before the last race: 1

### Teams (top three respectively)

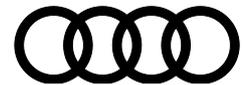
Most teams' titles: Renault e.dams 3

Most victories: Renault e.dams 15, Audi Sport ABT Schaeffler 10, DS Virgin 7

Most podium finishes: Audi Sport ABT Schaeffler 35, Renault e.dams 26, DS Virgin 19

Most pole positions: Renault e.dams 14, Mahindra Racing and DS Virgin 6 each, Audi Sport ABT Schaeffler 5

Most fastest race laps: Renault e.dams 10, Audi Sport ABT Schaeffler 9, DS Virgin 6



Partners

## **Audi's partners in Formula E**

**In its factory-backed Formula E commitment, Audi is able to rely on the support of renowned partners.**

### **Alpinestars**

Alpinestars since 1963 has been developing technologies for racing and today is the world's leading supplier of performance protection gear, clothing and shoes in motorsport. Thousands of hours invested in research and development and tests under the most challenging conditions guarantee the effective performance of the racing suits, shoes, gloves and technical underwear of the drivers of Team Audi Sport ABT Schaeffler, Lucas di Grassi and Daniel Abt.

### **Deutsche Post**

Deutsche Post is Europe's biggest postal services provider. The products and services portfolio combines the present and future of postal and communications services: from the delivery of letters and parcels to secure electronic communications through to dialog marketing. As a pioneer, the company develops new technologies such as CO<sub>2</sub>-neutral shipping and logistics solutions for online shops.

### **DHL**

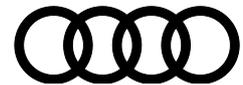
DHL with some 360,000 employees is the globally leading brand in logistics. As a "family of divisions" the DHL divisions offer a unique logistics portfolio – from national and international parcel delivery to transportation and fulfillment solutions in e-commerce, international express shipping and road air and sea cargo transportation through to supply chain management.

### **HYLA**

HYLA is represented worldwide with its unique air and room cleaning system. The air aspirated by the HYLA is filtered through water and cleaned of fine dust, allergens and house dust in the process. At the same time, the HYLA can replace a vacuum cleaner and be used to aromatize rooms as well. Ease of use and long life are hallmarks of the HYLA.

### **ITK Engineering**

ITK Engineering GmbH is an internationally active technology company with customers from the automotive, motorsport, medical device technology, rail and facility engineering, and robotics sectors. As a consulting and development partner



ITK realizes customized solutions in the fields of electrical/electronics systems, digitalization, connectivity, automation and propulsion concepts, etc. covering the entire development cycle – from requirements analysis, development and validation through to integration – and in motorsports takes care of trackside support at testing and race events.

#### **KUKA**

KUKA is an internationally active automation group with sales of about EUR 3.5 billion and some 14,200 employees. As one of the world leaders in the field of intelligent automation solutions, KUKA offers customers everything from a single source: from the component to the cell through to fully automated systems in the automotive, electronics, consumer goods, metal industry, logistics / e-commerce, healthcare and service robotics sectors. The group is headquartered in Augsburg, Germany.

#### **LGT**

LGT is the world's largest private banking and asset management group owned by a family of entrepreneurs. As the family office of the Princely House of Liechtenstein, the company has many years of experience in managing large estates. LGT employs more than 3,000 people at more than 20 locations in Europe, America, Asia and the Middle East.

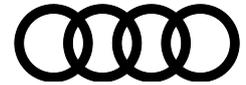
#### **MASCOT**

MASCOT is a Danish family-owned company that develops and produces workwear and safety shoes, and exports its products around the world. MASCOT employs more than 2,300 people worldwide and with its products and solutions addresses the construction trade, structural and civil engineering, logistics and manufacturing, among others. The workwear is produced at the company's own CSR-certified production sites in Vietnam and Laos.

#### **MegaRide**

The MegaRide software is based on models developed at the "Federico II" University in Naples, Italy. It is focused on vehicle dynamics and specifically on the interaction between the tires and the road. Objectives of the partnership include the prediction of grip conditions, thermal dynamics and tire degradation in order to optimize strategic decisions and vehicle setup.

#### **Riello UPS**



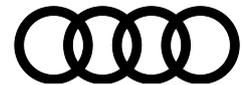
RPS S.p.A. (Riello UPS) is one of the global leaders in the production of uninterruptible power supply and standby power supply systems. The products from Riello UPS which are designed and manufactured in Italy are used wherever consistent voltage and reliability are crucial to business success – from desktops through to data centers.

**Schaeffler**

The Schaeffler Group is a globally active automotive and industrial supplier. Top quality, outstanding technology and powerful innovation are the basis for the Schaeffler's Group's continuing success. With precision-engineered components and systems in engine, transmission and chassis applications as well as rolling and plain bearing solutions for a wide range of industrial applications the Schaeffler Group already makes a decisive contribution today to the "Mobility for tomorrow."

**Würth Elektronik**

The Würth Electronics Group with more than 8,300 employees in 50 countries manufactures and sells electronic, electromechanical components, printed circuit boards and smart power and control systems, and is an independent group of companies within the worldwide Würth Group, the global market leader in assembly and fastening technology. The Würth Elektronik eiSos business unit specializes in electronic and electromechanical assembly components.



Audi motorsport history

## **From quattro to e-tron**

**Audi positions itself as the sportiest manufacturer in the premium segment and has a perfect basis to do so: motorsport. Sportiness, advanced technology and emotive design are the basis for the success of the Audi brand. The genes for this have their origin in racing – since 1980.**

### **The success story began with the Audi quattro**

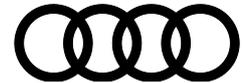
Excluding the era before the Second World War including the legendary Auto Union Grand Prix race cars in the 1930s, the motorsport history of AUDI AG began with the Audi quattro. The dominant victories and two manufacturers' and two drivers' titles achieved with the "original quattro" in the World Rally Championship between 1982 and 1984 were an important factor in the market success of quattro drive.

### **quattro victorious in circuit racing as well**

After Audi had turned rally racing upside down and stormed up Pikes Peak (USA) with the Sport quattro in record time on three successive occasions, Audi made quattro drive fit for circuit racing as well: initially with the Audi 200 quattro and the Audi 90 quattro IMSA GTO in the United States, in 1990 and 1991 with two championship titles for the Audi V8 quattro in the German Touring Car Championship (DTM) – and ultimately also with the A4 in the production-based super touring cars. In 1996, the Audi A4 quattro won championship titles in seven countries. Between 2012 and 2016, the all-wheel drive system returned to the race track as the e-tron quattro.

### **Audi R8 most successful Le Mans sports car in present-day racing**

After the dominant quattro drive was banned from touring car racing, Audi switched to sports prototypes and underpinned its slogan "Vorsprung durch Technik" in this motorsport category for 18 years as well. On making its debut at Le Mans, the toughest endurance race in the world, Audi, in 1999, immediately managed the leap onto the podium, in position three. In the following years, the Audi R8 was in a class of its own. From 2000 to 2002, Audi achieved a historic hat-trick, not least thanks to TFSI technology that debuted in 2001 and subsequently made its way into production as well. In 2004 and 2005, customer teams clinched two further overall victories for Audi. The R8 secured its spot in motorsport history with a total of 63 victories in 80 sports car races.



### **Title wins following the return to DTM**

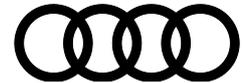
Following Laurent Aiello's victory with the Abt Audi TT-R in 2002, Audi returned to the DTM with a factory-backed commitment in 2004 and instantly won the title with Mattias Ekström. In 2007, the Swede triumphed again, followed by Timo Scheider in 2008 and 2009 – making Audi the first and so far only automobile manufacturer in DTM history to have managed a title hat-trick. Martin Tomczyk completed the success story of the Audi A4 DTM in the 2011 season with another title win – the fifth in total for the Audi A4 DTM. In 2013, Mike Rockenfeller in the Audi RS 5 DTM clinched DTM title number nine for Audi. Rene Rast caused a sensation in 2018 when he clinched another title for Audi in his rookie year. Audi took home the Manufacturer's Championship in the same year.

### **Pioneering achievements with TDI technology**

With TDI technology Audi achieved a pioneering feat and, at the same time, demonstrated “Vorsprung durch Technik” once again. In 2006, the Audi R10 TDI featuring a new concept was the first sports car with a diesel engine to triumph in the legendary 24 Hours of Le Mans. In total, TDI technology came out winning eight times at Le Mans. In 2007 and 2008, Audi was again victorious with the R10 TDI at La Sarthe. In addition, Audi won the American Le Mans Series with the diesel-powered racing sports cars three times in succession and, in 2008, the European Le Mans Series as well. With the R15 TDI Audi, in 2010, celebrated a one-two-three result in the fastest Le Mans race of all time and set a new distance record that has not been broken to date. In 2011, 2012, 2013 and 2014, Audi TDI power was again victorious at Le Mans. In 2014, the brand celebrated its 13th victory in just 16 participations. Audi demonstrates “Vorsprung durch Technik” in terms of energy efficiency as well. During the entire TDI era, Audi reduced diesel consumption by 46 percent within the space of one decade.

### **First hybrid winner at Le Mans**

On clinching the first victory of a hybrid race car in the 24 Hours of Le Mans in 2012, Audi achieved another pioneering feat in the world's most important endurance race. Three consecutive times (2012, 2013 und 2014) the Audi R18 e-tron quattro remained unbeaten at Le Mans. Many other innovations such as Audi Laser Light have been added to these pioneering feats in technology. The drivers' and manufacturers' titles won with the hybrid sports car in the 2012 and 2013 FIA World Endurance Championship (WEC) complete the track record in Audi's sports car era that ended in 2016.

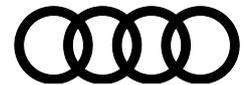


### **Audi Sport customer racing for the brand's customers**

The R8 LMS in 2009 marked Audi's first systematic development of a race car for use in customer sport. The GT3 sports car with a component content of more than 50 percent having been adopted from production instantly impressed. By the end of 2016, Audi delivered more than 200 race cars to customers. In March 2015, Audi presented the second generation of the successful GT3 sports car. It has won the 24 Hours at Spa and, even twice, the 24 Hours of Nürburgring, plus achieved other victories and championship titles. Since 2017, the Audi RS 3 LMS designed for the TCR touring car category has complemented the range down to the entry level. Starting at the end of 2017, Audi Sport customer racing will be offering a third model, the Audi R8 LMS GT4, primarily developed for gentlemen drivers.

### **Vorsprung durch Technik to continue**

Audi will continue to race with electric power in 2019 and at the same time its factory-backed commitment in the popular DTM touring car series. In the 2017/2018 season, Audi was the first German automobile manufacturer on the Formula E grid. With four victories and eleven podium finishes in total Audi Sport ABT Schaeffler clinched teams' championship after twelve races. The commitment in the fully electric racing series that is currently experiencing a boom with the participation of additional manufacturers and partners forms the electric pillar of the motorsport program. In addition, Audi will continue to be active in the DTM and gripping motorsport with internal combustion engines. Next year, the DTM will see one of the greatest changes in its more than 30-year history. In 2019, modern turbocharged four-cylinder engines will be introduced in the series.



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