The Bugatti Veyron on the track of the Targa Florio

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Another car, 50 years down the road

In 1956, the final attempts had failed, in the wake of the death of the company's founder in 1947 - preceded in death in 1939 by his son Jean, with whom he collaborated - to keep the substantially weakened company alive. After 47 years' production, in the course of which 7,950 Bugattis of models 13 through 251 had been manufactured, the gates to the Bugatti factory in Molsheim were forced to close. Today, nearly 50 years later to the day, the production of Bugatti automobiles in Molsheim is resuming, making Molsheim once again the hub of the Bugatti world. As a centre for reminiscence, picturesque town near Strasbourg has never lost its significance. The area's "Enthusiasts Bugatti Alsace", together with their friends in the various Bugatti clubs throughout the entire world, are in large measure responsible for keeping the brand alive over the decades - even in the absence of the product itself. This is an experience in which various other prestigious

automobile brands with melodious names have not shared. It is in this fact that the strength of the Bugatti brand values is expressed most clearly. The admiration for "art on wheels", the bold pursuit of the aesthetic conviction of Ettore Bugatti, a man who was first and foremost an artist, not a technician. The grandeur of the victories in the glorious years of dirt-encrusted heroes on the racetracks of this world and, not least, the suitability of these racing cars for everyday driving - which made Bugatti cars accessible to a broader clientele. The prestige of inspired design and the exclusiveness of individual models that helped catapult certain Bugatti models into the astronomical price classes.

1998 through 1999: Four design studies in 15 months time

In April 1998, the Volkswagen Group took over the Bugatti trademark, presenting the brand to the public for the first time at the International Motor Show in Paris with a study for a two-door coupé it had commissioned Italdesign to create: the Bugatti EB 118. A few months later, in March 1999, at the Geneva Motor Show, a design of the EB 218, itself also created at Italdesign, caused a sensation with a four-door saloon using the same 18-cylinder, 6.3 litre engine with 555 hp. This was followed the same year, at the IAA in Frankfurt, by the centre-engine design, the Bugatti EB 18/3 Chiron; once again Giugiaro was responsible for the design. And shortly thereafter, in Tokyo, the Bugatti EB 18/4 Veyron celebrated its world premiere, a model designed at the "Volkswagen Centre of Excellence Design" under the directorship of Hartmut Warkuss. Less than a year later, in autumn 2000 in Paris, the Veyron 16.4 was shown for the first time. The Bugatti Veyron 16.4 with the ultimate in performance features, the 1,001 hp, 8-litre, 16-cylinder engine and its technological specifications - 1,250 Nm at 2,200 rpm, top speed of more than 400 km/h, four turbochargers and permanent four-wheel drive, features that have remained in place to this day - celebrated its debut at the IAA in Frankfurt in September 2001.

2003: New team - new objectives

In 2001, the decision was made to go into series production of the Bugatti Veyron 16.4 with a maximum of 300 cars. In December of the following year, "Bugatti Automobiles S.A.S." was established, a subsidiary of "Volkswagen France" with headquarters in Molsheim. And nearly a year to the day thereafter, at the end of 2003, Dr. Thomas Bscher took overall charge of the Bugatti project as the new President of "Bugatti Automobiles S.A.S." Appointed to assist him was Dr. Wolfgang Schreiber, serving as technical director and simultaneously as head of "Bugatti Engineering GmbH" in Wolfsburg, where all of the development work for the new Bugatti is co-ordinated and, in part, carried out. His task was to put the Bugatti Veyron 16.4 on the road.

The new team subjected the entire project to a technological and financial feasibility study commissioned, among other things, to develop a realistic timeframe for the launch of production of the new Bugatti. Shortly before the 2004 Geneva Motor Show, the Executive

Board at the Group approved plans for the "new" Veyron project, scheduling production to begin in September 2005. This schedule has been met to this day.

The Veyron: An unrivalled synthesis of top performance and the everyday

This is made all the more remarkable by the fact that the Bugatti Veyron 16.4, despite its very limited production, is called upon to meet all of the specifications of the VW Group in their entirety. This means innumerable time-consuming trials and tests throughout the entire world, all devoted to the fulfilment of a single objective: to measure up to the strict, indeed relentless quality and quality-assurance standards the company has laid down. This ensures that this super sports car will be suitable for everyday driving as well, to a degree never before witnessed in any other series-production vehicle of this type. In the world of modern, series-production automobiles, the synthesis which has been brought to fruition in the Bugatti Veyron 16.4 is between easy and problem-free operation in day-to-day traffic and breathtaking driving in the highperformance area. A reference which would be music to the ears of Ettore Bugatti, whose early successes were themselves rooted in this unique combination.

Extensive construction work in Molsheim

Parallel to the ongoing activities in the product area, extensive construction work has been launched at the location in Molsheim. To begin with, the Château St. Jean - an edifice that Ettore Bugatti never used as a residence but rather only as a form of what, in today's parlance would be termed a customer service centre -, was completely renovated. The two stalls located to the south and the north of the castle, which in Bugatti's day served as stables, were telemetrically surveyed, dismantled and, using as many of the original elements of the structure as were still usable, such as wall segments and woodwork, reconstructed in a faithful copy of the original structures. In this new "Bugatti Era", these structures will for the most part have an administrative character; in one of the spaces, clients will also be able to take possession of their Bugatti Veyron in a historical setting.

The core of the investments made in Molsheim is the "Atelier" in which production of the Bugatti Veyron 16.4 is beginning in September 2005. In its architectural form, this modern production facility has been given stylistic features dipping back into the history of the automotive brand. With a southern exposure, the light- filled, glazed main hall is only partly evocative of an automobile-manufacturing operation in the classical sense of the term - it reminds the beholder more of a "Formula One laboratory". The setting is dominated by clinical cleanliness and precision workmanship with highly developed component parts. And yet the "Atelier" can still hold its own against the "major players". A runway for the measurement of relevant functional performance data and a generously proportioned water-spraying system for testing vehicle water tightness are to be found here, alongside a light chamber under the glaring lamps of which the slightest

inconsistency in a car's paintwork mercilessly catches the eye. A small test course has been laid out in the green spaces in front of the building. It can be used to supplement the road-test program compulsory for all Veyrons and which concludes the vehicle's production process. A logistics centre erected next to the "Atelier" rounds off the complex of buildings in Molsheim.

Historic location

Thanks to Bugatti, Molsheim has been elevated from anonymity to find its own place on the map - not just of the automotive world. And this is certainly justified, as it was the location of both Ettore Bugatti's production facilities and his adjacent private residence. In purely geographical terms, circumstances have changed somewhat since the purchase of the Château St. Jean and the property surrounding it , which covers 140,000 m2 and on which all other modern-day Bugatti activities take place. To be precise, the property is situated in Dorlisheim which, while within sight of the former Bugatti factory, is nevertheless located on the other side of the Bruche River. This has been the source of inspiration for a "postal sleight of hand" on the part of the new management at Bugatti. To be able to carry the historic value of the location in Molsheim into the Bugatti future while at the same time satisfying the administrative regulations of the federal state, a compromise was negotiated with local authorities. A Solomonic solution was arrived at with the latter, who took a very favourable view of the entire Bugatti project right from the beginning, providing their active support throughout its development. The correct and complete address of Bugatti "Cru 2005" is: Bugatti Automobiles S.A.S., 1, Château St. Jean, Dorlisheim, F-67 120 Molsheim.

Bugatti is on the threshold of a new era. Its location is Molsheim. The company is international. Ettore Bugatti was born in 1881 in Italy. He completed his technological instruction in Germany, first with de Dietrich in Niederbronn in Alsace - at the time still a part of Germany - and then at Deutz in Cologne, before he built his first automobile in 1909 in Molsheim. Since 1998, Bugatti has belonged to the Volkswagen Group as a French company with a French headquarters.

The modern-day Bugatti team - every bit as international as the company itself - views the legacy of Ettore Bugatti as both a challenge and an obligation. As Dr. Thomas Bscher, President of Bugatti Automobiles S.A.S., explained: "Here in Sicily, a chaptera chapter was written in the history of Bugatti. And this is where we are launching the first chapter of the new story. In addition to the heritage and the values of the Bugatti marque, we have also taken over its future. The Targa Florio stands for its past, while the Bugatti Veyron 16.4 stands for the 21st century."

Bugatti Veyron 16.4 The world's most innovative high-performance sportscar

High-tech equipment for the most ambitious project in automobile history.

Maximum safety for driver and passenger in every driving situation and unique driving dynamics were the essential development goals for the exceptional sportscar, the Bugatti Veyron 16.4. To achieve them, the Bugatti development engineers under Dr. Wolfgang Schreiber drew on the latest knowledge gained from the premier class in motor sport. The most innovative solutions in contemporary automobile construction were adapted.

The new Bugatti Veyron 16.4 is a classic example of an optimum combination of structural rigidity and lightweight construction. The survival cell for two persons consists of extremely strong, but feather-light carbon fibre. It is designed as a monocoque construction and is the central element in the vehicle's structure. It is connected at the front to a lightweight aluminium frame. Mounted above at the rear are carbon fibre side members. Below is a steel frame which holds the W16-cylinder engine. The external features at the rear consist of aluminium sheeting and also function as so-called crash boxes.

This sports coupé with a top speed over 400 km/h is powered by a 16-cylinder engine with a cylinder capacity of 8.0 litres and four turbochargers, which owes its compact dimensions to the unique array of its cylinder banks in a W configuration. The power unit produces 1,001 hp at 6,000 rpm and supplies a maximum torque of 1,250 newton metres between 2,200 and 5,500 rpm.

The enormous power is portioned out by the world's "fastest" gearbox, a direct shift DSG unit with seven forward gears and a dual clutch, exclusively developed for the all-wheel drive Bugatti Veyron 16.4. It is distinguished by its unequalled short shift times and lack of traction interruption. Optimum power distribution between the front and rear axles is provided by a Haldex clutch integrated behind the front axle differential. The rear axle differential has a multiple disk lock.

Using technical know-how from the aerospace sector, the braking system realised for the fastest series automobile of all time itself sets new standards with its unique deceleration values. It consists of a highperformance brake unit generating up to 180 bar brake pressure with carbon fibre disks and eight-cylinder monoblock brake callipers. Their titanium pistons have a stainless-steel crown with ceramic heat shielding. For braking from speed ranges above 200 km/h, the tail wing functions as an airbrake for a further increase in braking performance. For this purpose, the wing is set at an angle of 113 degrees in less than 0.4 seconds. The downthrust over the tail immediately rises to about 300 kg, permitting higher braking moments on the rear tyres. Full braking from 400 km/h brings the Bugatti Veyron 16.4 to a halt in less than 10 seconds.

The very high handling requirements of this exceptional sportscar are supported by a complex control installation of aerodynamic assistance systems. These solve conflicts of purpose arising from the simultaneous desire for low air resistance to achieve higher

speeds, adequate downthrust for good road-holding and the most favourable airflow to the high-performance aggregates for optimum cooling. The heart of the control equipment is a computer-controlled hydraulic system that regulates the road clearance of the sports coupé. There are three speed-dependent level settings. In addition, two actively controlled diffusor flaps in the front underbody increase the downthrust over the front axle. The same effect is achieved at the rear by venturis in the underbody and the tail wing.

The normal driving level, with tail wing and spoilers lying flush with the bodywork, is maintained up to 220 km/h. Above this speed, the bodywork is automatically lowered and the tail wing and spoilers are deployed. In this "handling setting", the diffusor flaps remain open. Higher downthrust forces are generated. The decision to drive the Bugatti Veyron 16.4 in the speed range above 375 km/h is made by the driver after a thorough review of the safety situation. With a second key in the cylinder to the left of the driver's seat, he can grant authorisation for access to the top speed in excess of 400 km/h.

As a complement to the extraordinary complexity of the Bugatti Veyron 16.4, the interior has an appearance of clarity and all the instruments can be operated intuitively. Fine materials and accentuated surfaces show their inspiration in historic Bugatti automobiles. The driver's workplace follows state-of-the-art ergonomic principles and is designed to be driver-centred. In his field of vision are the large central tachometer, the speedometer on the right and a new type of engine performance indicator on the left. This indicates the current engine performance in horsepower in steps of 100 up to 1,000.

Invisible to the occupants are numerous technical innovations which might be said to be on a second operative level. These are unique in series automobile construction and support the intelligent lightweight construction and the complex safety functions. The electrical system includes a total of 2.7 kilometres of cable, sheathed in very strong and extremely light glass fibre. This weighs only five kilograms and carries the communications of 26 control units.

The new Bugatti Veyron 16.4 is fitted as standard with a PDA (Personal Digital Assistant), which can load vehicle data through a Bluetooth interface and, for example, can forward security-relevant data automatically via a GSM mobile phone network.

The Bugatti Veyron 16.4 instills new life into the traditional marque of the designer genius Ettore Bugatti. It not only redefines the performance limits for an automobile, but also sets new standards for dynamic driving control. As the former racing driver and President of Bugatti Automobiles S.A.S., Dr. Thomas Bscher, says: "The Veyron is easier to handle than any other sportscar even approaching its performance class. The spontaneity with which it carries out the wishes of its driver is fascinating. And the high standard of its safety equipment is as unique as most of its details are exclusive."