

HISTORICAL NOTES

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# From the Beetle to a Global Player. Volkswagen Chronicle

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### FROM THE AUTOMOTIVE DREAM TO THE VOLKSWAGEN IDEA, 1904 - 1933

In the early 20th century the motor car was still a rare mode of transport. There were barely 16,000 throughout all of Germany in 1910. Some were driven as a form of adventure sport, while others were considered a mark of prestige. Cars remained the preserve of the rich and the beautiful people: Hand-crafted models from Benz, Daimler and Glaser were owned by Kaiser Wilhelm II, as well as by steel magnates and bankers. A large number of makes were serving a very small luxury market.

Yet as early as December 1904, writing in the Viennese journal “Der Motorwagen”, Aachen-based engineer Heinrich Dechamps was asking whether the motorcycle would maintain its popularity, or whether in fact a different kind of vehicle would be capable of assuming the mantle of personalised transportation for the masses: the “Volksautomobil”, or People’s Automobile. The dream of personal auto-mobility was extending into new segments of the population. The mass market for cars emerging in the USA was the principal driver of progress. The Ford Motor Company began making its robust new Model T in 1908. It sold initially for \$ 825. By 1920, thanks to assembly line technology and mass production, its price had fallen to \$ 450, allowing whole new social groups to become car-owners. Within a decade, the USA had become a truly automotive society. In Germany too, where before the First World War auto-mobility had been the preserve of social elites keen to enjoy the new feeling of power and speed, attention likewise began to turn to the production of small cars. The two-seater “Doktorwagen” launched

by Opel in 1909 at a price of 3,950 Marks proved popular due to its manoeuvrability and easiness to drive, and sold at a respectable rate of just under 800 units a year. In 1912 the company named it the “Volksautomobil”, or People’s Automobile. In 1913, car-maker Wanderer in Chemnitz launched its two-seater Type W 3. Though well received, it failed to sell in significant numbers. Any further advances were interrupted by the First World War.

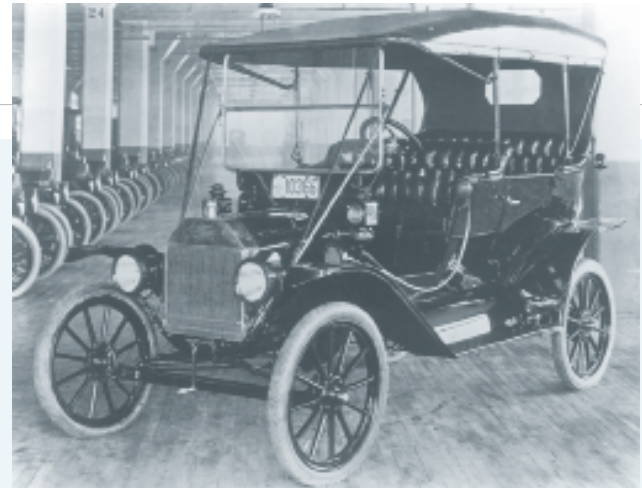
In 1919, Citroën opened a new factory operating conveyor belts in France with capacity to produce 100 cars a day. In Germany, however, the automobile remained a luxury item. That situation did not change fundamentally even with the launch of mass production by Opel in Rüsselsheim and Hanomag in Hanover from 1924/25 onwards. The country was lagging far behind France and the UK – and certainly the USA – in terms of car ownership. Nevertheless – thanks in part to their low price of 2,950 and 1,995 Reichsmarks respectively – the small cars sold by Opel and Hanomag were already being labelled “People’s Cars” (“Volkswagen”).

The idea of making a car for a mass market encouraged designers to come up with technical innovations. In 1925, an 18-year-old Hungarian technical academy student named Béla Barényi – who was later to make a name for himself through his improvements to vehicle safety – drew up a “chassis design for a People’s Car”, featuring a rear-mounted boxer engine and with its gearbox located in front of the rear axle. Another Hungarian, motoring journalist and



designer Josef Ganz, had been promoting the idea of a “People’s Car” since the mid-1920s, and brought out a number of prototypes for ultra-compact cars based on a combination design. Engineer Hans Ledwinka, born in Klosterneuburg near Vienna but working in the Czech town of Nesselsdorf, developed the Tatra 11, which for the first time featured a central tubular frame, a pendulum axle and an air-cooled two-cylinder boxer engine.

Ferdinand Porsche likewise took an early interest in small cars. His “Sascha” lightweight car designed at Steyr in 1922, featuring a 1.1 litre capacity four-cylinder engine developing 45 horsepower, did not go into production. In 1931, having set up as a freelance designer in Stuttgart, Porsche developed what he called a “quality small car for everyone” on behalf of motorcycle manufacturer Zündapp. The two-door model, designated internally by Porsche as the Type 12, had four seats. The Type 32, designed in 1933 for the NSU Vereinigte Fahrzeugwerke car company, featured torsion bar suspension and a rear-mounted air-cooled four-cylinder boxer engine. In the midst of the global financial crisis, concerns about high manufacturing and capital investment costs prevented the two bike-builders from moving into automobile production.



FORD T

The search for suitable technical solutions for small cars was well underway by the early 1930s. But public interest in a low-cost “People’s Car” was not yet enough to bring down the high cost of ownership, which still impeded mass car sales. Adolf Hitler’s announcement of government funding for motorisation and backing of the automotive industry at the International Automobile and Motorcycle Exhibition in Berlin soon after assuming power in February 1933 not only reflected an industrial policy aimed at job creation, but also made mass motoring an integral element of the regime’s utopian social vision.

### THE “GERMAN PEOPLE’S CAR” AS A “COMMUNAL PROJECT” OF THE GERMAN AUTOMOTIVE INDUSTRY, 1934 - 1937

The introduction of tax breaks and the promotion of motorsport in 1933 regenerated the automobile market. The end of the global financial crisis was in sight. Car-makers and designers such as Ferdinand Porsche hoped that the burgeoning recovery would entail a fundamental shift towards mass motoring. On January 17, 1934, Ferdinand Porsche submitted to the Reich Ministry of Transport a “Memorandum on the construction of a German People’s Car”, setting forth a “fully practical vehicle” for four adults, “of normal size but relatively light weight”, with a cruising speed suitable for the recently built autobahn network of 100 kilometres per hour. Thanks to his technical repute, boosted by the many motorsport victories of his Silberpfeil (Silver Arrow) design, Porsche’s idea was taken up by Adolf Hitler.

Car companies including Opel, Ford, Adler, Stoewer, and also Ludwigsburg-based Standard Fahrzeugfabrik, with its “Superior” model, presented versions of a “German People’s Car” at the International Automobile and Motorcycle Exhibition in Berlin in March 1934. Disregarding all of those, in his opening speech on March 7, 1934, Hitler himself spoke out in favour of building a “low-cost car” which would bring the German automotive industry “millions of new buyers”. Public pronouncements mentioned a selling price of 990 Reichsmarks.

This placed the ball firmly in the court of the Reich Automotive Industry Association (RDA), which in May 1934 decided to develop a “German People’s Car” as a “communal project” among the private automotive industry. The industry association signed a contract on June 22, 1934 commissioning Ferdinand Porsche’s office to handle the engineering design. There were grave doubts among the car companies as to the economic viability of the project in view of the 990 Reichsmarks target price. Including an independent designer in the process meant that they could outsource the unresolved technical issues to an external party, who was contracted to develop a prototype within one year.

The Porsche KG company went to work at its factory in Zuffenhausen near Stuttgart, and submitted the first prototype to the RDA’s Technical Commission on July 3, 1935. Other prototypes, including a convertible, followed. Porsche’s engineers overcame innumerable technical difficulties. The body began to take shape, and the chassis and engine were developed ever closer to specification. On October 12, 1936, the three vehicles of the V3 series were each subjected to a 50,000 kilometre test, the results of which were submitted to the RDA in a 96-page final report in January 1937. The adequacy of the vehicle in principle had been proven, but lack of hard currency and shortages of raw materials undermined prospects for profitable mass production. The question of financing also remained unresolved. Despite having resolved the basic technical problems, the “People’s Car” project hung by a thread because of economic factors.



FERDINAND PORSCHE



VW3 PROTOTYPE



1937 – 1945



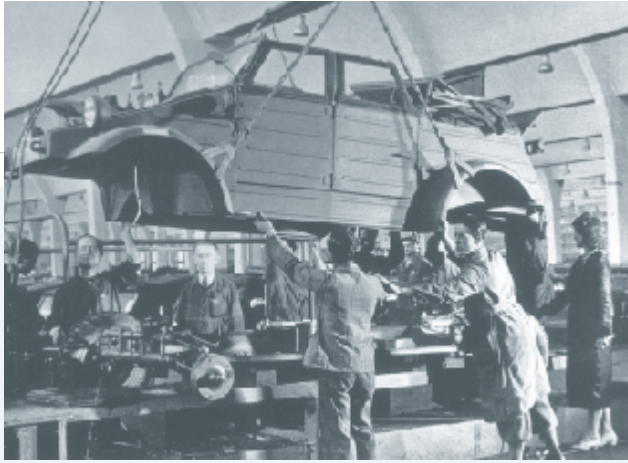
## 1937 – 1945

### Founding of the Company and Integration into the War Economy

This impasse was broken in January 1937, as responsibility for the project was assumed by the Deutsche Arbeitsfront (DAF), or German Labour Front, a unified organisation encompassing both employers and employees, which was looking for a prestige project to polish up its image. In the same period, in early April 1937, testing of the 30-vehicle W30 series began, involving more than two million kilometres of trials in total. On May 28, 1937, the DAF in Berlin established the “Gesellschaft zur Vorbereitung des Deutschen Volkswagens”, or “Corporation to prepare the way for the German People’s Car”, which on September 16, 1938 was renamed Volkswagenwerk GmbH. In February 1938 work began on a site east of Fallersleben on the Mittelland canal to construct the main plant, which was designed to operate as a vertically structured and largely autonomous model factory. The target was to produce 150,000 units in the first year after the plant’s scheduled opening in Autumn 1939, and 300,000 in the second year, with capacity increasing to 450,000 units by the year after. The medium-term target was to build 1.5 million “People’s Cars”. The workforce was planned to grow from 7,500, to 14,500, and ultimately to 21,000 people. There was no financing for the estimated investment of some 172 million Reichsmarks in the site and 76 million Reichsmarks for the machine plant. Revenues from the sale of property confiscated from the now disbanded independent trade unions were earmarked to help pay for the investment.

The size, technical equipment and manufacturing depth of the facility were oriented to that of Ford’s River Rouge plant in Detroit, which was considered the most advanced car factory in the world and was visited twice by Ferdinand Porsche and the planning team. In parallel with the construction of the main plant in what is today Wolfsburg, a facility was built in Braunschweig (Brunswick), known as the “Vorwerk” (outworks), to provide tools and dies and to serve as a training centre for the skilled workforce required. Shortages of labour and raw materials delayed the progress of both construction projects.

At the propaganda-laden foundation-laying ceremony on May 26, 1938, Hitler christened Ferdinand Porsche’s vehicle the “KdF-Wagen” (based on the Nazi slogan “Kraft durch Freude”, or Strength through Joy). Accompanied by a massive advertising campaign, on August 1, 1938 the DAF launched an instalment savings scheme for buyers of the KdF-Wagen. The car could be acquired through a minimum payment of just five Reichsmarks a week to the DAF. But the ambitious plans were thwarted by lack of buying power – a Volkswagen was still realistically unaffordable for an industrial worker. Some 336,000 people ultimately signed up to the instalment savings scheme – far fewer than the target envisioned by the gigantic manufacturing plan.



FINAL ASSEMBLY OF THE KÜBELWAGEN

While the Vorwerk did in fact begin training apprentices and making tools and dies in 1938, fitting-out of the main plant was continually postponed as priority was given to armaments. Not a single car had been produced by the time the war began on September 1, 1939. Instead, the retooling of the plant for armaments production meant that the company's entire operations were re-aligned. In late 1939, Volkswagenwerk GmbH began carrying out repairs for the German Air Force on the Junkers Ju 88 combat aircraft, as well as supplying wings and wooden drop tanks. As the Army became more motorised in 1940, the company started making cars. Mass production of military utility vehicles (Kübelwagen), and then from 1942 amphibious personnel carriers, established a second arm of the business. By the end of the war the plant had built a total of 66,285 vehicles. Between 1940 and 1944 sales turnover rose from 31 to 297 million Reichsmarks.

The company's involvement in the German armaments industry led to the acquisition of subsidiaries, including in Luckenwalde and Ustron, from 1941 onwards. In 1943/44, Volkswagenwerk GmbH expanded its production capacity by outsourcing to France and by repurposing iron ore and



MAIN PLANT AT THE PRESENT-DAY WOLFSBURG

asphalt drift mines to create underground manufacturing facilities. Following a number of bombing raids on the complex on the Mittelland canal, in 1944/45 the business was increasingly decentralised as production departments were relocated to temporary premises. The productivity needs of the growing armaments operation were met from Summer 1940 onwards by the increasing use of forced labour. The first group of such slave labourers were Polish women deployed at the company's main plant. Later, prisoners of war and concentration camp inmates were assigned to work there – an estimated 20,000 people in total. They came from European countries which had been occupied by, or were under the control of, the German Reich, and in 1944 accounted for two thirds of the company's workforce. In Nazi Germany forced labourers had no rights, and were subjected to varying levels of racial discrimination. Insufficient food, physical violence and exploitation undermined their health and endangered their lives.

The US troops who arrived on April 11, 1945 stopped the plant's armaments production and liberated its slave workforce. The longed-for end of the Nazi dictatorship marked the beginning of a new era for Volkswagen too.



## 1937

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**MAY 28** Three functionaries of the German Labour Front (DAF), Paul A. Brinckmann, Alexander Halder and Werner Boltz, sign the articles of association establishing the “Gesellschaft zur Vorbereitung des Deutschen Volkswagens mit beschränkter Haftung” (“Corporation to prepare the way for the German People’s Car”; “Gezuvor” for short) before a notary public in Berlin. The stated purpose of the company is the “planning and technical development of the German People’s Car”. The share capital amounts to 480,000 Reichsmarks, with the capital contributions from “Treuhandgesellschaft für wirtschaftliche Unternehmungen mbH” (Trust corporation for economic enterprises; TWU) totalling 100,000 Reichsmarks and from “Vermögensverwaltung der Deutschen Arbeitsfront mbH” (DAF asset management corporation; VV) totalling 380,000 Reichsmarks. Designer Ferdinand Porsche, business executive Jakob Werlin and DAF department head Bodo Lafferentz are appointed as directors. The registered offices of the new company are initially located at Kaiserallee 25. Gezuvor is entered in the Register of Companies at the Berlin District Court on June 2, 1937. The company also maintains an office at the Stuttgart premises of Porsche KG, in order to supervise technical and other planning activities there too.

**JUNE 20** The three directors of Volkswagenwerk GmbH and staff from Porsche KG set off on a four-week trip to Detroit in order to broaden their knowledge of Ford’s mass production methods and to buy specialist American machinery. They also recruit a number of German-American experts employed at Ford.

**AUGUST** Fritz Kuntze, the former power plant manager at Ford’s River Rouge factory recruited by Ferdinand Porsche, sketches out initial plans for the complex, incorporating three factory sheds running parallel to the Mittel-land canal and setting out a three-stage development plan. In addition to a power plant, Kuntze also plans a hot and cold rolling mill, a foundry, a forge, and a glass and rubber plant, to provide on-site production of key components. The planned workforce accommodation is designated “Town A” and “Village B”.

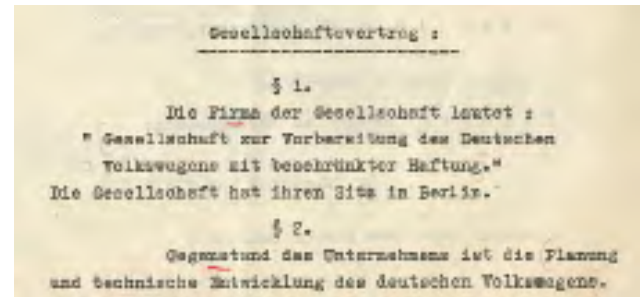
**SEPTEMBER 10** Alpine trials of four W30 vehicles, including the convertible version, begin. The route stretches from Stuttgart, over the Fernpass and the Brenner pass, to Merano. The return leg passes through Lienz and over the Turracher Höhe, the steepest pass in the eastern Alps, over the Katschberg, Tauern and Großglockner passes, through Zell am See and then, on September 16, via Munich back to the start. The 7,000 kilometre endurance test reveals need for improvements to the carburettor, the brakes and the gearbox. By 1938, the W30 vehicles have undergone more than two million kilometres of trials in total.



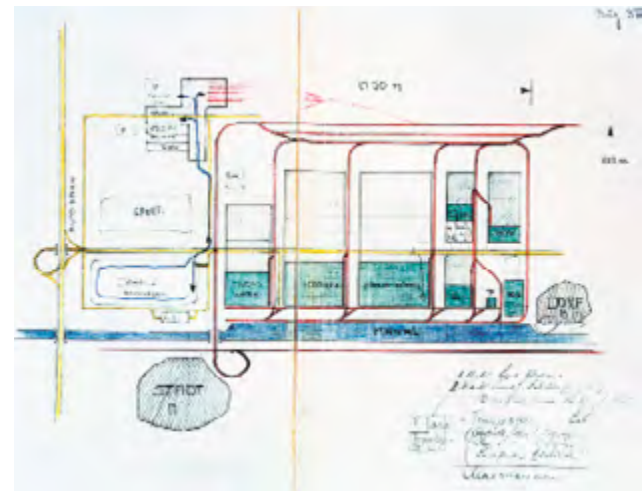
**OCTOBER 21** An extraordinary shareholders' meeting amends the company's articles of association with a view to the required land purchases and the related tax commitments. The stated object of the company in the amended articles is not to "make profits", as it was "created solely to pursue the non-commercial purpose of the planning and technical development of the German People's Car". Consequently, if the company should be dissolved or its non-profit status rescinded, its net assets are to be assigned to the "NS-Gemeinschaft Kraft durch Freude" (Nazi "Strength through Joy" community organisation). The company's registered place of business is moved to Taubertstraße 4 in the Grunewald district of Berlin.



W30



COMPANY ARTICLES OF ASSOCIATION



FACTORY LAYOUT

1937

# 1938

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**JANUARY 17** A meeting with the Reich Planning Department headed by Reich Minister Hanns Kerrl formally confirms the location already favoured by Hitler for the works on a site between Fallersleben and Vorsfelde. Its benefits include a central location in the heart of the German Reich as well as good transport links to the Ruhr area along the Mittelland canal and the Hanover-Berlin railway. As a result, alternatives at Angermünde on the river Oder and at Tangermünde on the Elbe are rejected.

**FEBRUARY 8** Earthworks for the main plant begin at the site which today is Wolfsburg. The construction workers are housed in a communal work camp, in standardised wooden huts. In the meantime, the so-called “Vorwerk” (outworks) for the production of tools and dies and for the training of skilled staff is under construction to the north of Braunschweig.

**MARCH 11** The contract between Gezuvor and the von der Wense family settles the acquisition of 620 hectares of land at the main plant site, stipulating a selling price of 2.67 million Reichsmarks.

**MAY 26** The German Labour Front (DAF) stages a grandiose foundation laying ceremony at the Volkswagen plant at the personal command of Adolf Hitler. Three vehicle variants – a saloon, a roll-top saloon and convertible – are presented to the approximately 50,000 people in attendance. In his speech, Hitler names the car “KdF-Wagen”, after the DAF subsidiary organisation “Kraft durch Freude” (Strength through Joy).

**JULY 8** The first 250 apprentices are “conscripted” to the Vorwerk, even though construction of their accommodation is behind schedule. The training of foremen to oversee skilled workers, organised in close consultation with the DAF, combines an outstanding technical education with political indoctrination conforming to the system. Applicants not only need a recommendation from the Hitler Youth, but that movement also supervises and looks after them in their on-site communal accommodation. Having initially been housed in interim work camps some distance away, on September 16, 1938 the apprentices and their tutors and carers are relocated to Braunschweig. The two factory sheds are sufficiently complete by the end of the year for tool and die making to begin using the installed machinery.

**JULY 12** The contract with Graf von der Schulenburg to acquire 1,888 hectares of land and buildings for 8.5 million Reichsmarks brings the already repurposed areas around the main plant formally into the company’s ownership.

**JULY 26** The pilot production VW38 vehicles, with bodies built by Reutter in Stuttgart, undergo mountain trials through to July 29, 1938. The 30 vehicles produced undertake a promotional tour of many towns and cities in all parts of the German Reich.



1938

VORWERK UNDER CONSTRUCTION



FOUNDATION LAYING

**AUGUST 1** At a works gathering in the IG-Farben factory in Leverkusen, head of the DAF Robert Ley announces the launch of the “KdF-Wagen” instalment saving scheme. The politically determined purchase price of 990 Reichsmarks can be paid by paying a weekly minimum instalment of five Reichsmarks into the DAF saving scheme. By the end of the war, 336,638 savers have signed up to the KdF-Wagen scheme. But that is far fewer than the DAF had expected – and certainly not enough to fulfil the vision of a mass-motorised society. Moreover, wage-earners are severely under-represented because of their low average income. No KdF-Wagen cars had been delivered to scheme members by the end of the war.

**SEPTEMBER 10** The German construction workers seconded to build the Atlantic Wall are replaced by Italians. Within a period of three days, 2,400 Italian men arrive at the railway station in Fallersleben. Seconded on the basis of an agreement by the DAF with its sister Fascist organisation in Italy, the Confederazione generale fascista dell’industria italiana (Fascist General Confederation of Italian Industry) to work temporarily on the construction of the factory and the town, they soon make up the largest group among the construction gangs. Receiving equal pay, and working the same hours, as the German workforce, their numbers rise to 6,000 by the Summer of 1939.

**SEPTEMBER 16** In response to the high costs of the construction works and the machinery, an extraordinary shareholders’ meeting increases the company’s share capital from 480,000 to 50 million Reichsmarks. Of the total capital, the DAF asset management corporation VV is assigned 49.9 million Reichsmarks and the trust corporation TWU 100,000 Reichsmarks. The company’s name is changed to Volkswagenwerk GmbH. At the pressing of the Supervisory Board chairman, top DAF functionary Heinrich Simon, the following entry is added to the Register of Companies: “The purpose of the company is to implement the mission assigned to the Deutsche Arbeitsfront (German Labour Front) by the Führer and Reichskanzler to manufacture, develop and market the Volkswagen (People’s Car), and to manufacture and market other products to the good of the German economy as a whole.” The meeting also resolves to establish a seven-member Supervisory Board, to which the three installed directors, Messrs. Porsche, Werlin and Lafferentz, are also appointed.

**SEPTEMBER 29** The constitutive meeting of the Supervisory Board, among other resolutions, increases the Management Board from three to seven members in order to handle the expanded scope of company activities. All new resolutions are entered in the Register of Companies on October 13, 1938.



“YOUR KDF-WAGEN” PROMOTIONAL BROCHURE



ITALIAN CONSTRUCTION WORKERS  
AT THE MAIN PLANT

1938

## WORKFORCE

Volkswagenwerk GmbH	
Employees	1,127

## FINANCIAL DATA (IN MILLION REICHSMARKS)

Volkswagenwerk GmbH	
Sales revenue	0
Loss	-9.0

## 1939

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**FEBRUARY 17** The KdF-Wagen is launched to the public – as well as to the German and international media – at the International Automobile and Motorcycle Exhibition in Berlin. Journalists are able to take a test drive in the vehicle to the construction site of the main plant in present-day Wolfsburg.

**APRIL** Construction work is around 10 percent behind schedule due to lack of raw materials and labour. Nevertheless, interior outfitting work is carried out in the four production sheds, in the complex on the southern boundary, and in the power plant. The machinery is installed. The new construction is managed by Karl Kohlbecker. Well-known architects including Emil Rudolf Mewes, Martin Schupp and Fritz Kremmer contribute to the design. Employee welfare facilities such as the health centre and the family accommodation block are still stuck at the planning stage however.

**APRIL 12** The superbly well-equipped works training academy opens at the “Vorwerk” site in Braunschweig, while the second year of 307 new apprentices who arrived on May 15th are undergoing practical training in the workshop.

**AUGUST 16** The Borsig turbine of the new power plant constructed on the Mittelland canal is placed under load for the first time. Together with the water treatment plants and the 20-atm tank, a rudimentary energy and steam supply is established. The earthworks for the 83 metre wide and 74 metre long power plant began in April 1938. The overground construction on the 64 metre tall power plant building began on August 26th, 1938. It is a combined heat and power plant, supplying both to the factory complex and to the new town under construction. Its coal is delivered on the Mittelland canal.

**SEPTEMBER 21** In negotiations with the General Quartermaster of the Air Force, the Volkswagen management attains designation as an “independent subcontractor for the Ju 88 programme” within the Junkers manufacturing network. As a result, the company receives contracts from Junkers – the largest state-owned aircraft corporation – for aircraft repairs and for the production of wings. Air Force equipment remains the company’s major generator of sales turnover throughout the Second World War.

**OCTOBER 16** In the course of its move into armaments production, the Volkswagenwerk GmbH management decides to upgrade the factory to “special military production” status as stipulated by the Wehrmacht. Civilian production of KdF-Wagen vehicles is becoming illusive, so the order from the Army Munitions Office for the development and manufacture of 11 Type 82 military utility vehicles (known as Kübelwagen) and two of the four-wheel drive Type 87 vehicles arouse hope of establishing mass production operations with a military variant.





MAIN PLANT SHELL



TRAINING WORKSHOP AT THE VORWERK

1939

## WORKFORCE

Volkswagenwerk GmbH	
Employees	4,826

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	0.9
Loss	-8.5



TURBINE SET IN THE POWER PLANT

## 1940

**JANUARY** The head office of Volkswagenwerk GmbH is relocated within Berlin to Knesebeckstraße 48/49.

**JUNE** The first 300 women from Poland arrive at the main plant and are deployed making wooden drop tanks. Poles are the first group of forced labourers to be subjected to discrimination by way of compulsory identification, accommodation in enclosed camps, restricted freedom of movement, and disadvantages in terms of pay and conditions. The disenfranchised Poles are subject solely to the authority of the Police.

**AUGUST 3** Production of the VW 82 Kübelwagen military utility vehicle starts at the main plant. The pre-production vehicles and the first 25 VW 82 vehicles were built at Porsche in Stuttgart. The open personnel carrier, a KdF-Wagen saloon modified for military use, has 27.5 cm ground clearance and is fitted with a 1,131 ccm 25 hp boxer engine. Its key features are all-terrain capability and robustness. The bodies are supplied by rail from Ambi Budd in Johannisthal near Berlin. On December 20th the one thousandth vehicle rolls off the production line.

**OCTOBER 31** The extraordinary shareholders' meeting doubles the company's share capital to 100 million Reichsmarks. The DAF asset management corporation VV holds 99.9 million Reichsmarks; the rest is held by the trust corporation for economic enterprises TWU.



VW 82



**NOVEMBER 25** Aircraft repairer Braunschweiger Flugzeugreparatur GmbH leases to Volkswagenwerk GmbH its hangar, built in 1937, at the Waggum airfield. This enables the airfield to be used for flying trials of repaired Junkers aircraft. Volkswagen constructs two further sheds close to the airfield where Ju 88 aircraft as well as the Do 17 and the He 111 are serviced.



AIRCRAFT REPAIR AND TRIALS IN WAGGUM

1940

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Military utility vehicles	1,006

## WORKFORCE

Volkswagenwerk GmbH	
Employees	8,876

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	31.4
Loss	-12.8

# 1941

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**APRIL 22** The forge works in Ustron acquired on January 20, 1941 from Vienna-based Schrauben- und Schmiedewaren-Fabriks AG, Brevillier & A. Unger & Söhne is transformed into Schmiedewerk Ustron GmbH, based in Berlin. The plan is to expand the plant into a large-scale forge works capable of supplying Volkswagenwerk GmbH with the forgings needed for annual production of 450,000 cars after the war. This marks a return to the original concept of a vertically structured business model. The plant is handed over on July 1, 1941. By the turn of the year 1941/42, the factory employs a total of 687 people, primarily supplying the Reichsbahn (state railways) and the Wehrmacht. The volume contracted by Volkswagenwerk GmbH increases from 10 to 284 tonnes by May 1942. Full supply from the Group subsidiary is not feasible however.

**JUNE 10** After Otto Dyckhoff resigns as a director of Volkswagenwerk GmbH on June 9, 1941, with effect from June 15, 1941, owing to his transfer to Bayerische Motorenwerke AG, on request of the three directors Felix Schmidt, Ferdinand Porsche and Bodo Lafferentz the Supervisory Board elects attorney-at-law Dr. Anton Piëch, the son-in-law of Ferdinand Porsche, as an additional director. Piëch becomes manager of the main plant. This entails a comprehensive reorganisation of the Volkswagen plant geared to the handling of large-scale projects, so as to exploit economies of scale in production and improve the utilisation of plant capacity.

**JULY 1** An extraordinary shareholders' meeting increases the company's share capital by a further 50 million Reichsmarks to 150 million Reichsmarks. Of that total capital, the DAF asset management corporation VV holds 145 million

Reichsmarks and the trust corporation for economic enterprises TWU 5 million Reichsmarks.

**JULY 11** The first of 41 KdF-Wagen vehicles built in the course of the year rolls off the production line. A photograph taken just a few months later purporting to show production getting underway is intended to maintain the illusion that the start of mass production is imminent immediately following a German victory over the Soviet Union. The 630 KdF saloons produced at the main plant by the end of the war are acquired by the Nazi elite.

**SEPTEMBER 5/6** Volkswagenwerk GmbH acquires Luckenwalder Feintuchfabrik GmbH, formerly known as Tannenbaum, Pariser & Co prior to its Aryanisation by the German Reich. Volkswagenwerk GmbH takes direct ownership of the land and buildings. As the already disbanded textile business does not obtain a production permit, only finishing is carried out there, while vacant areas are rented out. At the end of 1942, 11 salaried staff, 53 industrial workers and 65 prisoners of war are working in Luckenwalde. Additionally, a large-scale repair workshop for Volkswagen engines is constructed on the works site in 1944.

**OCTOBER** The first 120 Soviet prisoners of war arrive at the main plant as forced labour. A further 745 follow by the year-end. Owing to the starvation policy imposed by the Wehrmacht, the prisoners are severely weakened on arrival, and incapable of doing heavy physical labour. Undernourishment and infection result in 27 fatalities by the year-end. Those suffering from typhus, or who are very weak, are transported back to Wehrmacht prisoner of war camps.



SOVIET PRISONERS  
OF WAR



KDF-WAGEN BUILT  
AT THE MAIN PLANT



PRODUCTION OF OT OVENS

**DECEMBER 11** The main plant starts producing OT ovens to supply German troops inadequately prepared for the onset of Winter on the eastern front. Such contracts help utilise plant capacity, and prove profitable. The 221,505 OT ovens produced by the end of 1942 generate revenues of almost 6 million Reichsmarks and a gross profit of 1.9 million Reichsmarks for the company.

1941

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	41
Military utility vehicles	4,609
Total	4,650

## WORKFORCE

Volkswagenwerk GmbH	
Employees	12,712

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	73.1
Loss	-0.2

# 1942

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**MARCH 19** Armaments Minister Albert Speer convinces Hitler that passenger car production in the German Reich should be carried out exclusively by Volkswagenwerk GmbH. Director Hans Mayr becomes chairman of the Passenger Cars subcommittee of the Motor Vehicles Board as part of the system of self-administration of German industry.

**APRIL** Part of the aircraft production operation is relocated to the Neudeker wool combing and worsted spinning mills leased from Dresdner Bank AG. Air Force equipment production is increasingly concentrated there.

**APRIL 8** The work gang seconded from the “Arbeitsdorf” concentration camp established on the factory site following discussions with Adolf Hitler and Heinrich Himmler, initially comprising 400 men, starts work on extending the light metal foundry. At least five of the total of 900 prisoners die. Rescinding the construction project’s wartime priority classification, Armaments Minister Albert Speer orders the concentration camp inmates to be transferred out on October 4, 1942.

**AUGUST 10** The VW 166, a four-wheel drive amphibious light personnel carrier, goes into production at the main plant. The amphibious skirting is supplied by the Ambi Budd company from Berlin. The development work on what was initially planned as a larger amphibious vehicle began in June 1940. Demand from the military for a highly manoeuvrable personnel carrier with tough all-terrain capability is increasing, so Porsche KG shortens the wheelbase to 2 metres and reduces the track width to 1.23 metres. By the year-end, the main plant has built 511 of the VW 166.

**NOVEMBER 1** The central kitchen located west of the factory sheds begins supplying the canteens in the complex on the southern boundary.

**DECEMBER 31** By the end of the year, 492 employees in the “Vorwerk” tool and die works have been conscripted into the army, including 106 youths born in 1923/24, who sign up for 12 years. The losses are replaced by 261 new apprentices and 398 foreign workers, who are accommodated in huts on the factory site.

**DECEMBER 31** Output of repaired aircraft from the company’s works in Waggum increases in the course of the year to 253 units. A further 37 are awaiting completion due to lack of engines. Repairs of fuselages and wings are increasing as substantially, as is the production of new landing flaps, rudders and elevators.



SOVIET PRISONERS OF WAR  
ON THE KÜBELWAGEN LINE



AIRCRAFT WING REPAIR AT THE MAIN PLANT

#### VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	157
Military utility vehicles	8,549
Amphibious personnel carriers	511
Total	9,238

#### WORKFORCE

Volkswagenwerk GmbH	
Employees	16,246

#### FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	151.2
Profit	0.3



LIGHT METAL FOUNDRY

## 1943

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**MAY 15** 205 Dutch students, sentenced to forced labour for refusing to swear loyalty to the German occupying forces, arrive at the plant. The numbers of Dutch workers increase to 750 by the Spring of 1944. The Dutch are placed on an equal footing with German workers in terms of pay, food and accommodation.

**AUGUST 31** Having been designated as a main supplier since January 1943, Volkswagenwerk GmbH supplies the first 100 cells of the flying bomb Fi 103, better known as the V1. By the end of September, more than 1,500 workers are engaged in flying bomb production. Following a bombing raid on the Georg Fieseler works on October 22, 1943, Volkswagen attains key significance for the Nazis' so-called "vengeance-weapons" programme, assuring high levels of turnover.

**OCTOBER** At the beginning of the month, the first transports comprising an initial 1,441 Italian military forced labour deportees arrive at the main plant. Designated work gang 6024, they are soldiers interned by the German forces in the Mediterranean theatre following the fall of Mussolini and Italy's truce with the Allies. 200 Italian officers follow on October 11th.

**OCTOBER 13** An extraordinary shareholders' meeting rescinds the provisions in the company's articles of association relating to the Supervisory Board, which thereby ceases its activities. Supervision of the company's operations is placed instead in the hands of Heinrich Simon, the head of the DAF's Economic Enterprises division. His consent is required for all real estate transactions, the construction and expansion of works facilities, the design of manufacturing programmes, the acquisition of share-holdings, and the appointment of directors and senior executives.

**NOVEMBER** The Armaments Ministry designates Volkswagenwerk GmbH as a "mentor" to S.A des Automobiles Peugeot, aimed at providing it with access to that company's production capacities. Volkswagen actually awarded Peugeot the first contract for the development and manufacture of two ingot mould foundries back on July 24, 1941. Now it awards contracts for the manufacture of cylinder heads, crankcases and gearbox housings, as well as aircraft engine cowls.



SHIPPING BOMBS FROM THE MAIN PLANT



GROUP PHOTO OF DUTCH STUDENTS

1943

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	303
Military utility vehicles	17,029
Amphibious personnel carriers	8,258
Total	26,177

## WORKFORCE

Volkswagenwerk GmbH	
Employees	19,500

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	231.8
Profit	10.1

## 1944

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**MARCH 17** Volkswagenwerk GmbH is assigned the iron ore mine at Tiercelet in Lorraine for the planned underground relocation of Air Force equipment production departments. It is converted into an underground factory within six months by forced labour, including Jewish concentration camp inmates. Thanks to state financing of the entire project, the expansion of production capacity appears worthwhile. The approach of Allied troops in August 1944 brings the illusive plan to an end. 300 concentration camp inmates together with the machines are initially relocated to tunnels near Dernau, and on September 30, 1944 they are moved to the Mittelbau-Dora concentration camp.

**APRIL 8** American aircraft bomb the main plant. The 500 high-explosive and 450 incendiary bombs damage shed 3, the works railhead, the complex at the southern boundary and the roofs of sheds 2, 3 and 4. The raid kills 13 people and injures 40.

**MAY 5** As a camouflage manoeuvre in connection with the project to relocate Fi-103 production underground in Tiercelet, on the initiative of the Reich Air Ministry the new company Minette GmbH is founded in Berlin with share capital of 10 million Reichsmarks. The subsidiary consolidates all the company's Air Force equipment production in underground facilities.

**MAY 29** A group of 300 Jews from the Auschwitz-Birkenau concentration camp arrives at the main plant to provide labour for flying bomb production. Accommodated with their SS guards in converted washrooms in shed 1, the prisoners are assigned to the assembly line of the Fi-103. At the end of June 1944 they are transported to Tiercelet.

**MAY 31** Some 800 inmates from the Neuengamme concentration camp arrive at the Laagberg site to construct a barrack hut complex. They are forced to carry out physically strenuous excavation and construction work under the eyes of SS guards.

**JUNE 20** On June 20th and 29th, as part of the Allied Operation "Crossbow", aimed at destroying V-weapons manufacturing capability, heavy bombing raids involving a total of 178 aircraft see 401 tonnes of high-explosive and incendiary bombs hit the main plant. The damage is substantial, impacting on all the sheds as well as the power plant. Among the dead are a number of foreigners, "shot for looting".

**JULY** A transport of female Hungarian Jews from Auschwitz arrives at the main plant. They are followed in November by a group of Jewish women from Bergen-Belsen. January 1945 sees the arrival of more women at the main plant – Partisans deported from Yugoslavia. They are accommodated in converted washrooms in shed 1. The female work gang belongs to the satellite camp system of the Neuengamme concentration camp. The Jewish women initially work on the production line for the Teller mines made at the plant from 1942 onwards. Starting in November 1944, the prisoners also make Panzerfaust grenade-launchers.



UNDERGROUND FACTORY IN TIERCELET



BOMB DAMAGE AT THE MAIN PLANT



LAAGBERG SATELLITE CONCENTRATION CAMP

**AUGUST 5** An American air raid causes serious damage, including to the press plant. Production is temporarily interrupted, but quickly resumed thanks to improvisations such as relocating the engine assembly line to the basement. Additionally, some departments and their machinery and materials stores are distributed around the near locality and to more distant sites, operating from decommissioned potato flake factories, restaurant function rooms or potash mines.

**AUGUST 9** The management decides to press on with the relocation of production operations by all efforts, among other reasons to save the machinery. The choice falls on asphalt pits owned by Deutsche Asphalt AG near Eschershausen. The development project, code-named “Hecht”, surpasses the scale of the main plant itself. Despite the plans being scaled-back to a tenth of their original, the targets set remain illusive. On September 14, 1944, an initial group of 250 inmates from the Buchenwald concentration camp are transported to a specially established satellite camp in order to speed up the necessary infrastructure works.

**SEPTEMBER 12** As a result of the damage to the assembly line, and owing to a run-down of orders, production of the VW 166 amphibious personnel carrier is ended, after outputting a total of 14,276 units.

**OCTOBER 13** The main plant receives an order for the production of 900,000 bullet-heads as part of a campaign to rapidly boost Panzerfaust output. In November the plant retools to produce complete Panzerfausts.

**OCTOBER 23** The state-owned Mittelwerk GmbH takes over the primary contract for mass production of the Fi 103 from Volkswagenwerk GmbH. 300 concentration camp inmates, previously forced to work for Volkswagenwerk GmbH, are transferred to the main Mittelbau-Dora camp to continue flying bomb production. The move is to prove fatal for many.

**DECEMBER 31** The cost of war damage totals 156 million Reichsmarks, of which 86 million Reichsmarks have been officially acknowledged by the end of 1944. An instalment payment of 70 million Reichsmarks is the largest single revenue item.



TELLER MINE PRODUCTION



ACCESS TO THE ASPHALT MINE NEAR HOLZEN

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	129
Military utility vehicles	15,005
Amphibious personnel carriers	5,507
Total	20,884

## WORKFORCE

Volkswagenwerk GmbH	
Employees (on 30.04.)	19,065

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	297.6
Profit	10.3



END OF AMPHIBIOUS PERSONNEL CARRIER PRODUCTION

1944

## 1945

**MARCH 31** The Hecht/Stein satellite camp in Holzen is cleared by the SS. While the larger group is sent by rail to the main camp at Buchenwald, the remaining 350 inmates are transported via Salzgitter to Bergen-Belsen. Many are killed in an air raid on their train as it stands in Celle railway station, as well as by crimes of violence.

**APRIL 7** In advance of the Allied occupation, the female concentration camp inmates are transported to Salzwedel, where they are liberated by American troops on April 14th. The men from the Laagberg satellite camp transported to the Wöbbelin concentration camp near Ludwigslust are not liberated until May 2, 1945.

**APRIL 10** The last 50 Kübelwagens to roll off the line mark the end of a wartime vehicle output totalling 66,285 units. In January 1945, an astoundingly high 2,092 units of the VW 82 are still produced. This reduces over the subsequent months to 850, 994 and 393 Kübelwagen units respectively.



FORCED LABOURERS LIBERATED  
FROM THE MAIN PLANT

LIBERATION OF CONCENTRATION CAMP  
INMATES IN WÖBBELIN



1945

#### VEHICLE PRODUCTION (UP TO 10.04.1945)

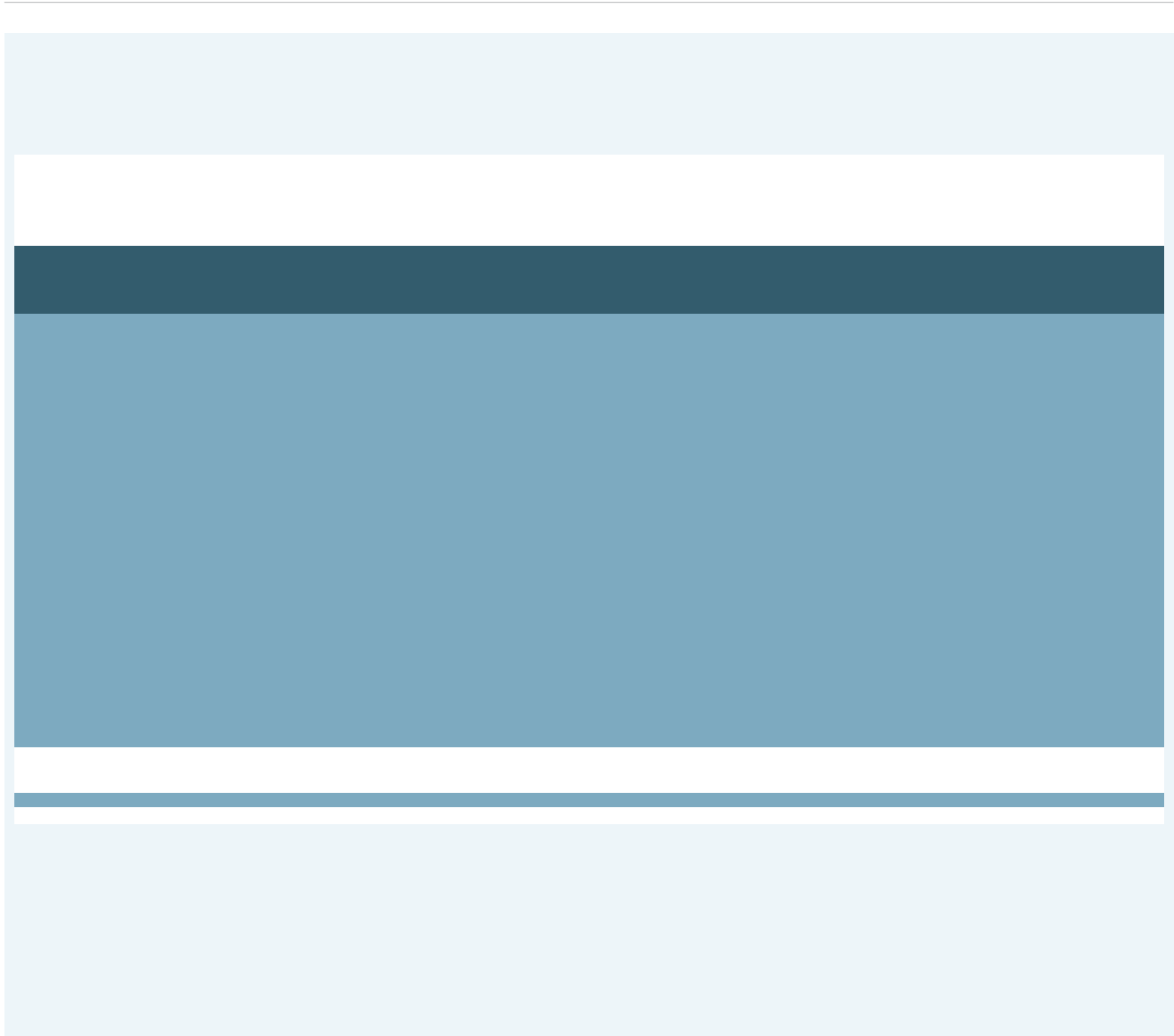
Volkswagenwerk GmbH	
Military utility vehicles	4,329

#### WORKFORCE (ON 10.04.1945)

Volkswagenwerk GmbH	
Employees	10,378

#### FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue (up to 28.02.)	13.7



# 1945 – 1949



## 1945 – 1949

### The Work of the British

The occupation of the factory by American troops in April 1945 marked the beginning of the transition from armaments production to a civilian automotive concern, generating hope for a better future. As the largest and most important employer in a region with little industry, Volkswagen guaranteed the survival of the local population. The factory provided work, housing and food. These functions were certainly in the minds of the British Military Government when they took over the administration of the firm in trusteeship in June 1945. Their decision to reinstate peacetime production and the assembly line manufacturing of the Volkswagen saloon was primarily a decision made in their own interest. By assuming the responsibilities of an occupying force, their need for additional means of transport increased, especially since the war diminished the number of available British military vehicles. The production requirement for the occupation forces and British pragmatism saved Volkswagen from threatened dismantling.

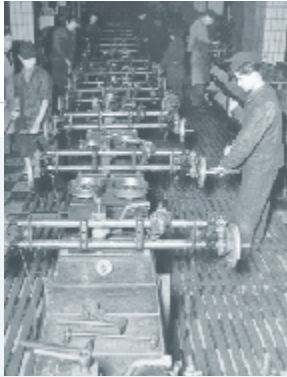
Volkswagen's position as a British-administered manufacturer proved advantageous in many ways. The Military Government provided the credit necessary for the resumption of production and was able to use its power of command to overcome many obstacles. Because the company manu-

factured goods for the Allies, it had priority in supply of raw materials that were then in short supply. The importance of this privilege during the time of economic control cannot be overestimated. Like most raw materials, the steel that was indispensable for car production was subject to a quota system.

Volkswagen had an advantageous starting position when the peacetime assembly line was restarted. In spite of the damage inflicted on the factory buildings, the machine park, which was moved to dispersal sites, survived the Allied bombings largely untouched. If enough coal was available, the factory's own power plant made it immune from the frequent power shutdowns of the post-war period. In addition, the company had its own press shop and the facility in Braunschweig compensated at least in part for the shortcomings of suppliers by producing its own parts and components.

Despite British protection, the shortage of material and power seriously impaired production of the Volkswagen saloon after it was started on December 27, 1945. The steel that was allocated was often late and, because of a shortage of raw material, suppliers could not meet all of the company's





AXLE PRODUCTION

needs. The British Military Government had to quickly abandon their earlier plans of producing 4,000 cars a month for the occupation forces starting in January 1946. This initial calculated monthly production rate was finally reduced to 1,000 vehicles a month, a figure that remained stable until the currency reform and the introduction of the Deutschmark. In accordance with British orders, the German works managers tried to gradually increase car output to 2,500 a month, but these attempts were thwarted by the shortage of raw material and difficulties in procuring parts. The malnutrition and general exhaustion of the workforce were further problems. Because workers needed to forage for food and to purchase goods on the black market in order to assure survival, there was also chronic absenteeism. For the first two years after the war ended it was therefore imperative to provide the employees with food and clothing. This responsibility was gradually handed over to the Works Council, and it took up most of their time.

Plans to expand production were also hindered by a shortage of workers. A shortage of housing and high employee fluctuation made it more difficult to recruit a permanent workforce. For many of the refugees and migrants coming to Wolfsburg by the thousands from the former German territories in Eastern Europe in search of food and housing, a job at the Volkswagen plant was only an intermediate stop on their way to West Germany. The chronic housing shortage in Wolfsburg caused many of the workers to simply move on. For most of the plant workers, living conditions were basic at best. Separated from their families, they lived in the sparsely decorated camp barracks where the forced labourers had earlier been housed. Desperately needed skilled workers as well as managerial staff could hardly be enticed to stay or be convinced to come to work for the company under these conditions. Because the construction of new housing was hardly a realistic prospect during these first post-war years, the company was forced to renovate and expand the existing barracks. The housing problem was eased a little in this way, but not solved. Only when the surrounding region was linked to the factory site by bus and train, and with the construction of company-owned apartment buildings beginning after 1950, did it become possible to build up a core workforce.

BODY SHELL



The British trustees established key conditions for the company's future success by eliminating disadvantages the firm had compared to its competitors. First of all, at the end of the war Volkswagen had only the beginnings of a service and distribution system. The German Labour Front (DAF) had been intended to set up both, but Hitler's grandiose plans for mass motorisation were shelved when preparations for war began. In accordance with British initiatives, a service function was set up by the end of 1945. This comprised a parts warehouse, a technical department and a service training school. Starting in February 1946, dealers and mechanics from authorised workshops received training there. Volkswagen assisted the repair workshops by providing service bulletins and repair manuals. In addition, a damage file index was set up which gave the technical department a systematic method of dealing with problems for the first time. The service department acquired an excellent reputation within only a few years and profited greatly from the experience of the Royal Electrical and Mechanical Engineers, who set up their own workshop in the Volkswagen plant. The organisation of a sales network progressed just as swiftly after the prospect of selling Volkswagens to the general public was proposed in the production programme issued in June 1946. Factory management pressed for the establishment of a dealer network, and the British agreed to this proposal for their zone in October 1946. It was to be supported by two field representatives and subjected to strict quality controls. The exchange of experience between dealers and management developed in time into a trusted partnership, which was to become profitable for both sides.



DELIVERY TO THE FRENCH MILITARY  
GOVERNMENT



AT THE EXPORT FAIR IN HANOVER

The British introduced a second decisive development in the summer of 1947, with long-term effects. Their decision to export Volkswagens was aimed at replenishing the currency reserves of a British economy still reeling from the financial costs of the war, but it also laid the foundation for the international success of the Volkswagen saloon and the company's launch onto the global marketplace. The start of exports came at an unfavourable time, however. The supply crisis became so severe that the number of vehicles that the plant was to produce could not be met in August and November 1947. It was only the following year that foreign business gradually took hold.

In the meantime, the factory management had developed a saloon model whose workmanship and features were superior to the standard domestic version, making it suitable for export. Thanks to high-quality paintwork in attractive colours, comfortable upholstery, chrome bumpers and hub caps, Volkswagen was able to gain a competitive edge over foreign manufacturers. In 1948, 4,385 vehicles were exported to European countries: 1,820 to the Netherlands, 1,380 to Switzerland, 1,050 to Belgium, 75 to Luxembourg, 55 to Sweden and 5 to Denmark. Exports the following year climbed to a total of 7,127 vehicles, meaning that Volkswagen sold over 15 percent of its total production to European markets.



IVAN HIRST

The British Senior Resident Officer, Major Ivan Hirst, played a decisive role in the conversion of the armaments factory into a car company. Thanks to his improvisational talents, technical and organisational problems were solved and supply shortages overcome. Hirst steadfastly pressed for improvements in the quality of the saloon, and this was to become an important factor in Volkswagen's international reputation. When the British Military Government turned over the trusteeship of Volkswagenwerk GmbH to the German Federal Government and its administration to the State of Lower Saxony on October 8, 1949, the company was in good condition. It had approximately 10,000 employees, a monthly production output of 4,000 vehicles and cash reserves of about 30 million Deutschmarks. Production for the occupation forces gave Volkswagen a substantial advantage over the competition. In 1948/49, it built just under half of all the cars produced in West Germany. The firm was well ahead of other car-makers in the export business too. Volkswagen was in a strong position when it joined the international competition for customers and market share.

# 1945

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**APRIL 11** American troops occupy the “Stadt des KdF-Wagens” (home town of the KdF-Wagen), liberate the forced labourers and set up a maintenance works for their military vehicles in the Volkswagen factory. Former inspection manager Rudolf Brörmann is designated as works manager.

**MAY 16** The Americans order assembly of the first five Kübelwagen military utility vehicles from material stocks. Over the following months, more VW 82 vehicles are built and supplied to the American and British military.

**JUNE 5** Responsibility for Volkswagenwerk GmbH is turned over to the British Military Government, which confiscates the firm in accordance with Control Council Law No. 52 and administers it in trusteeship until its return to German control.

**AUGUST 22** The British Military Government instructs Volkswagen to produce 20,000 saloons in order to meet its increased transport needs during the occupation period. Major Ivan Hirst assumes command as Senior Resident Officer of the British Military Government.

**NOVEMBER 27** The Works Council elected in a democratic ballot held from November 5 to 7 meets for the first time. It replaces the provisional council set up during the summer of 1945, and elects Willi Hilgers as its first Chairman.

**DECEMBER 27** Mass production of the Volkswagen saloon under British administration begins. By the year-end a total of 55 vehicles have been built.

**DECEMBER 31** At the year-end, the “Vorwerk” facility in Braunschweig is integrated into the process chain of the Wolfsburg plant. The facility begins producing special welding machines, tools and dies as well as carburettors, clutches, shock absorbers and fuel pumps for the new saloon production. Thanks to British support in gaining access to supplies, the firm’s own production capabilities are able in part to replace a supply industry devastated by the war and restricted by the controlled economy. The workforce in Braunschweig in December 1945 comprises 218 wage-earners and 58 salaried employees.

## SALOON



1945

## VEHICLE PRODUCTION

<b>Volkswagenwerk GmbH</b>	
	1,785

## WORKFORCE

<b>Volkswagenwerk GmbH</b>	
Wage-earners	5,459
Salaried staff	574
Total	6,033

## FINANCIAL DATA (IN MILLION RM)

<b>Volkswagenwerk GmbH</b>	
Sales revenue	11.7
Loss	-2.4

VEHICLE "MARRIAGE"

## 1946

**FEBRUARY 26** The British appoint the lawyer Dr. Hermann Münch as the chief trustee of Volkswagenwerk GmbH; he also becomes General Director on June 17th.

**MARCH 30** For the first time, production figures reach the level of 1,000 vehicles a month ordered by the British. The milestone is marked by a small ceremony. Apart from slight fluctuations, the monthly production figures remain at this level until the beginning of 1948 because the necessary volumes of raw materials and components cannot be obtained.

**JULY 17** A first saloon car is delivered to dealer Gottfried Schultz in Essen; eight more follow on July 23rd. Hamburg dealership Raffay & Co. receives its first Volkswagen on July 22nd.

**OCTOBER 25** The British Military Government approves the establishment of a Volkswagen sales organisation in its zone. In the beginning, this comprised 10 main distributors and 28 dealers. By the time Volkswagenwerk GmbH was turned over to German control, the company had established a more extensive sales and service network with the help of the British.

**DECEMBER 6** Overdue sheet metal deliveries, an acute coal shortage and a cold spell during the power crisis of 1946/47 force the British works management to shut down the production of Volkswagens until March 10, 1947.

**DECEMBER 16** The newly elected Works Council is constituted, and elects Otto Peter as its Chairman.

FIRST PRODUCTION MILESTONE





HERMANN MÜNCH



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	10,020

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	7,351
Salaried staff	910
Total	8,261

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	54.9
Profit	2.8

**SERVICE BULLETIN No. 13|4**  
**Kundendienst-Brief Nr. 13|4**

WOLFSBURG MOTOR WORKS  VOLKSWAGENWERK

Wolfsburg, 9 July 1946

**Subject: Silencing Engine.**

In silence the engine the following modifications have been introduced effective from chassis No. 1-057901, body No. 66991.

- 1) The rear portion of the roof side members are altered to a length of 20" (50 cm) with sound proofing material. (Fig. A)
- 2) To prevent sound proofing material from falling out, a small bag filled with sound proofing material is inserted between roof side member, rear window frame and outer panel, and packed in place. (Fig. B)
- 3) The rear luggage compartment, part No. 802771, is covered with felt, .39" (1 cm) thick, which is to be packed in place. On top of this felt is placed the floor mat (consists of cardboard and protective mouldings), using metal screws. (Fig. C-D)
- 4) Felt, .79" (1 cm) thick, is also to be packed on the partition between instrument board and petrol tank. (Fig. E) The cardboard previously used is placed on top of the felt.

**Betr.: Dämpfen der Motorsgeräusche.**

Zur Dämpfung der Motorsgeräusche werden ab Fahrzeug-Nr. 1-057 901, Aufbau-Nr. 66 991, folgende Änderungen durchgeführt:

- 1) Der hintere Teil der Dachstiele wird in einer Länge von 50 cm mit Dämpfungswolle gefüllt. (Abb. A)
- 2) Als Abschluß dieser Füllung wird zwischen Dachstiel, Rückfenster Rahmen und Außenblech eine mit Dämpfungswolle gefüllte Sackchen ein geschoben und angeklebt, um ein Herausfallen der Wolle zu verhindern. (Abb. B)
- 3) Der hintere Kofferboden weist Rückwand und der Kofferrückd., Instrument-Nr. 802771, werden mit einem 1 cm starken Innelfilz beklebt. Darüber wird der Kofferbodenbelag bestehend aus Bodenplatte mit Schutzleisten) mit Blechschrauben befestigt. (Abb. C-D)
- 4) Die Vorderwand zwischen Schaltbrett und Kraftstoffbehälter wird ebenfalls mit einem 1 cm starken Innelfilz beklebt. (Abb. E) Die früher verwendete Pappe wird darüber gelegt.

BILINGUAL SERVICE MATERIAL

1946

## 1947

**MAY 10** The agreement concluded by management and the Works Council comes into effect, in accordance with the Allied Works Council Law of 1946, ensuring the workers' representatives a voice in the decision-making process. The Works Council now has the right to participate in matters concerning hiring and firing, reassignment, wages and salaries, as well as operational changes. In addition, the Council supervises the works canteen and allocates the agricultural produce grown on the land belonging to Volkswagenwerk GmbH. The Works Council can also participate in determining the production programme and examine company books.

**AUGUST 8** Pon's Automobielhandel in Amersfoort becomes an authorised importer for the Netherlands. At the beginning of October 1947, the Pon brothers import five Volkswagen saloons, thus closing Volkswagen's first export deal. After exporting 56 Volkswagens in 1947, exports surge within a year to 4,500 units. In order to assist the export business, Volkswagen signs contracts in 1948 with Walter Haefner's Neue Amag AG in Switzerland, with Anciens Etablissements D'Ieteren Frères in Belgium as well as with partners in Luxembourg, Sweden, Denmark and Norway.



VEHICLE ASSEMBLY IN WOLFSBURG



## START OF EXPORT: FIVE SALOONS FOR THE NETHERLANDS



1947

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	8,987

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	7,190
Salaried staff	1,192
Total	8,382

## FINANCIAL DATA (IN MILLION RM)

Volkswagenwerk GmbH	
Sales revenue	57.0
Profit	0.8

## 1948

**JANUARY 1** The former Opel manager Heinrich Nordhoff takes up his post as General Director of Volkswagenwerk GmbH.

**JUNE 20** The currency reform and the introduction of the Deutschmark (DM) establishes a functioning market for goods, ending the short-supply economy and paving the way for Volkswagen's economic growth. Production figures increase from 1,185 vehicles in May to 2,306 vehicles in December 1948.

**JULY 1** The progression to a market economy sees the establishment of an Advertising department. Despite a severe shortage of funding, the staff set about creating a unified "Volkswagen house style". The department issues a bimonthly news bulletin, the "Volkswagen-Informationsdienst", and once a month produces a new slide for local cinema advertising. It also commissions the cultural documentary film "Symphony of an Automobile", which premieres in cinemas in 1949.

**JULY 29** The decision made by the Volkswagenwerk GmbH on April 26, 1948 to move its head office from Berlin to Wolfsburg is implemented. The firm is entered in the Register of Companies at the District Court in Fallersleben.

**SEPTEMBER 1** The pay rises agreed between the company's management and the IG Metall and Deutsche Angestellten-gewerkschaft trade unions after the relaxing of the pay freeze come into force. Salaried staff receive on average 15 percent more; wage-earners 22 percent. The lower pay scales are increased by more "for social reasons". Women's pay even increases by half. The standard pay rate rises from DM 0.88 to DM 1.14.

**SEPTEMBER 10** The management approves the supply and price of modification of an initial 50 saloons as ambulances for the German Red Cross Lower Saxony region by the contractor Christian Miesen in Bonn. The special vehicle costs the end-user DM 6,863 delivered from Bonn. A total of 75 vehicles are built by the year-end.

HEINRICH NORDHOFF



## BODY SHOP IN WOLFSBURG



1948

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
Saloons	19,244

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	7,494
Salaried staff	1,225
Total	8,719

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	
Sales revenue	89.2
Profit	1.7

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	15,078
Abroad	4,464
Total	19,542

## 1949

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**JANUARY 1** In the three western zones of occupied Germany, 16 main distributors, 31 wholesalers, 103 dealers and 81 contract service centres handle sales and service operations.

**APRIL 6** Volkswagen orders 675 bodies for the elegantly styled Type 14 two-seater convertible from coachbuilder Josef Hebmüller & Sons in Wülfrath. The trials conducted on the test vehicles delivered on March 21 and June 1, 1949 reveal the need to strengthen the bodywork, among other requirements. Deficiencies in manufacturing quality are also highlighted. On July 23, 1949, a flash-fire of paint dust halts production. Hebmüller had supplied 53 convertibles and 236 Volkswagen Type 18 police car bodies up to that point. Hebmüller manages to resume production, but Volkswagen refuses its request to increase delivery volumes. The Hebmüller convertible was to become a much sought-after collector's item, primarily because only 680 were built in total.

**JUNE 30** Volkswagen-Finanzierungs-Gesellschaft mbH, a finance company, is founded to provide loans to customers in Germany and to dealers. This measure, set up to encourage the sales of Volkswagens, serves as an instrument to compensate for the lack of purchasing power on the domestic market. Between 1949 and 1954, the number of predominately one-year loans rises from 168 to 14,831 and the financing volume from DM 551,000 to DM 48.7 million.

**JULY 22** Mass production of the Volkswagen Type 15, a four-seater convertible based on the Volkswagen saloon export model, starts at the Wilhelm Karmann factory in Osnabrück. After a demonstration of the vehicle on April 13, 1949, and following a series of trials, on April 18, 1949 Nordhoff states that "this convertible ought to go into production very soon". The contract signed on August 3/5, 1949 seals the supply of an initial 1,000 units. The vehicle attracts plenty of customers by virtue of its great practicality and thanks to the concealed stiffeners on its side panels which neutralise vibration. Initially on sale for DM 7,500, a total of 440 units are built by the year-end. In 1950 production rises to 2,669 units. By the time production ended on January 10, 1980, a total of 330,281 Beetle convertibles had rolled off the line in Osnabrück.

VOLKSWAGEN CONVERTIBLE BY HEBMÜLLER



1949



VOLKSWAGEN CONVERTIBLE BY KARMANN

**SEPTEMBER 6** In accordance with Ordinance 202, the British Military Government hands over Volkswagenwerk GmbH to the State of Lower Saxony with the provision that it takes control on behalf of, and under the supervision of, the German Federal Government. The question of ownership is left open until the privatisation of the company.

**OCTOBER 1** Volkswagen increases its range of employee benefits by introducing a voluntary insurance scheme. The company pension scheme, which is available initially to all employees over 25 years of age who have been with the company for at least four years, supplements state social security payments on retirement. The sum is based on duration of service. In case of death, the widow receives half of the monthly pension. A death benefits scheme is also instituted at the same time for married employees and other employees with dependants. This provides a one-off payment of DM 4,000 to surviving dependants. A general accident insurance policy taken out for the entire workforce pays financial benefits in case of accidental death or invalidity.

**OCTOBER 8** Colonel Charles Radclyffe signs the protocol turning over Volkswagenwerk GmbH to the trusteeship of the German Federal Government. The State of Lower Saxony takes over its administration.

**NOVEMBER 18** Ernst Rahm becomes Chairman of the Works Council.



PROTOCOL FOR TRANSFER TO  
THE GERMAN FEDERAL GOVERNMENT

TRANSFER OF  
VOLKSWAGENWERK GMBH TO THE  
GERMAN FEDERAL GOVERNMENT



1949

VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	46,154

WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	8,846
Salaried staff	1,381
Total	10,227

FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	
Sales revenue	243
Profit	3.9

VEHICLE SALES

Volkswagenwerk GmbH	
Germany	38,666
Abroad	7,128
Total	45,794





1950-1960



1950–1960

## Internationalisation and Mass Production in the Era of Germany's Economic Miracle

Volkswagen was already considered a symbol of West Germany's Economic Miracle, or "Wirtschaftswunder", even by its contemporaries. The company's success matched that of the Beetle itself. The factory's capacity as well as the rationalisation initiative introduced in 1954 created the technical preconditions for mass production of the Volkswagen Saloon and the Transporter. Volkswagen was able to shape its long-term growth strategy by combining mass production, global market orientation and the integration of its workforce. In 1950, the Wolfsburg company exported one third of its car production to 18 countries, most of them in Europe. The main export markets were Sweden, Belgium, the Netherlands and Switzerland. By exporting 1,253 vehicles to Brazil for the first time, South America emerged as a second important focus of the company's activities, especially at a time when the import of US models there almost came to a complete stop because of a shortage of dollar reserves. Volkswagen gave priority at an early stage to supplying this key future market.

Europe's economic recovery and the emerging industrialisation of many countries outside Europe created a favourable situation for the export of Volkswagens. International trade based largely on bilateral agreements proved beneficial for Volkswagen. The dollar shortage in most countries temporarily weakened the US competition, while the export prospects of German rivals were limited by their low production capacity. As a public company, Volkswagenwerk GmbH could also hope for the support of the Federal Government, which, by negotiating trade agreements, opened up export possibilities for German industry. With a share of up to 50 percent of all German car exports, Volkswagen was the most important earner of foreign currency and the leading German car exporter during the 1950s.

The systematic expansion of the export business during the first half of the 1950s was not entirely free of trouble and risk, however. Investments were at first only rewarded with narrow profit margins, because Volkswagen's price calculations had to take into consideration the establishment of its products on international markets, and so the company exported its products at close to cost. In addition, the establishment of a production site in Brazil ran into difficulties



#### BY VOLKSWAGEN TO ITALY

because of political and economic instability. Problems were also encountered when a sales organisation for the US market was set up. Top American dealers were already tied to exclusive contracts with domestic manufacturers, and the standard 30 percent trade discount made competitive pricing difficult.

Despite these problems, Volkswagen was able to break into the European, American and African markets by the mid-1950s. This was thanks for the most part to its engineering attributes and the quality standards of the continuously improved saloon. The Beetle enjoyed the reputation of being an economical and reliable car, especially suited to the needs of developing countries because of its fuel efficiency and its robust design suitable for regions with underdeveloped roads. On the other hand, Volkswagenwerk GmbH was diligent when entering new markets, supporting its products with a sales and service network. The company's management believed that long-term success would only come from an organisation that included a close-knit network of service centres equipped with special tools and well-trained personnel, and capable of supplying the required replacement parts. Volkswagen's excellent reputation in this regard

provided a key competitive edge on international markets. Volkswagen demanded high levels of investment from its dealers in order to guarantee professional customer service. In the strategically important Canadian and US markets, Volkswagenwerk GmbH set up its own sales network. At the same time, production sites were established in Brazil, South Africa and Australia. The Wolfsburg company moved onto the international stage early in its development, laying the foundations for a worldwide production network.

Volkswagen celebrated its greatest triumphs on the domestic market, where the saloon became a symbol of Germany's Economic Miracle during the 1950s. The dream of mass motorisation that emerged around 1900 as the new technological age was born, and which was later misused by the Nazis for their own political ends, was finally being realised – and at a rapid rate. The Volkswagen saloon was the best-selling car of the decade, achieving a market share of around 40 percent. The model's engineering and design imbued it with the sense of a "classless" product, embodying the self-confidence of an emerging consumerist society and reflecting the car's transition from a luxury item to an essential part of daily life for broad segments of the population. The Transporter, built from 1950 onwards, was no less successful, dominating the van market with a share of about 30 percent. The sales potential for Volkswagenwerk GmbH on the domestic market was, nevertheless, limited.

During the first half of the 1950s, backlogged demand from business users resulted in steadily growing sales, but the private customer base grew only slowly. Despite rising incomes, for most car-enthusied West Germans the Beetle remained an unaffordable dream. Individual mobility was provided predominately by the motorcycle, and it was only in 1955 that new car registrations surpassed those of two-wheelers. The intensified restructuring of production to create a Fordist mass production system in 1954 appeared promising because international successes were making up for the limitations of the domestic market. Factory automation made possible the production volumes which were now needed to meet the demands of the recently entered international market and especially the boom in demand in the USA from 1954 onwards.

The workforce shared in the company's economic success, earning high salaries and receiving a package of voluntary benefits which, against a background of generally peaceful industrial relations in the 1950s, engendered a co-operative working climate. There was a high degree of flexibility

in work assignment. The Works Council and management worked together in an attempt to keep employee turnover to a minimum and solve the shortage of skilled workers. A generous pay and benefits system gradually helped to create a stable core workforce, with company employees considering themselves part of the Volkswagen family. Volkswagen's pay rates were the best in the German car industry, and the company was a ground-breaker beyond its own sector too. Volkswagen's policy of allowing employees to share in the company's success was criticised by employers' organisations, as well as by the Federal Government, which saw its anti-inflationary efforts as being endangered by such wage increases. Nevertheless, the company's cautious public administration and excellent balance sheet gave the management of Volkswagenwerk GmbH enough leeway to steer its own course in terms of pay and working hours policy. In October 1955, the Works Council, the IG Metall metalworkers' union and Volkswagen's management agreed to a two-stage reduction in working hours, providing a 40-hour working week for most of the company's employees from 1957 onwards.



HEINRICH NORDHOFF  
AT THE COMPANY ASSEMBLY



FEDERAL CHANCELLOR KONRAD ADENAUER  
AT THE WOLFSBURG PLANT

Further disharmony between the company's management and the German Federal Government surfaced on the privatisation issue, which the German parliament had been debating since the summer of 1956. Volkswagen's management saw no urgent need to change the legal form of the successful business. The Works Council and the workforce, on the other hand, were interested in protecting the financial and fringe benefits they had received, and fought against the government's privatisation plans. They received the support of the opposition SPD Social Democrat party, which raised its voice in parliament against the sell-off of national assets. Volkswagen's management realised, however, that the privatisation of Germany's most important car-maker was inevitable in the medium term. Volkswagenwerk GmbH was basically a company without an owner, administered by the State of Lower Saxony on behalf of and under the supervision of the Federal Government. In addition, public trusteeship did not conform to the free-market economy policies of the coalition government headed by the Christian Democrat CDU party.

The Federal Government and the company's management agreed that shares in Volkswagen should be sold widely as a "people's stock", so preventing large blocks of shares from being concentrated in a small number of hands. The proposed initial capital of DM 600 million provoked some opposition. With future investments in mind, Heinrich Nordhoff voted for cutting the share capital in half, but he could not push his commercially motivated position through. Volkswagenwerk AG, which was entered in the Register of Companies on August 22, 1960, was able to continue its successful development after privatisation. However, it was not the high share capital that caused the company difficulties during the 1960s, but rather the issues of mass production and model policy.

## 1950

**MARCH 4** An annual bonus of up to DM 120 is introduced for employees to mark the occasion of the 100,000th Volkswagen manufactured since the end of the war. In 1954, bonuses are raised to 4 percent of gross income.

**MARCH 8** Mass production of the Transporter begins in Wolfsburg. The model is used for transporting goods and as a minibus, as a fire department vehicle, as a police car, a postal delivery van, and later also as a camper-van. Planned as an “uncompromising van”, the three-quarter tonne vehicle adds a second model series to Volkswagen’s portfolio which, with its 4.6 cubic metre load space, appeals primarily to business users. While the Transporter adopts some technical features from the Volkswagen saloon, such as its air-cooled rear-mounted engine developing 25 hp, it is provided with a reinforced chassis. Prices start at DM 5,850 ex-factory. Because of its many uses, the Type 2 is in great demand in Germany as well as overseas.

**OCTOBER 11** The first two CKD (completely knocked down) saloon kits are shipped to Motor Distribution Limited in Dublin, which assembles 48 of the vehicles by the year-end.

**DECEMBER 30** The Export department records its “first successful year of overseas business”, with 179 saloons sold to Egypt; 10 saloons to Ethiopia; 123 saloons and 5 Transporters to Uruguay; 328 saloons and 2 Transporters to the USA; and 627 saloons and 302 Transporters to Brazil. A further 324 saloons are shipped in kit form and assembled by Sao Paulo-based Brasmotor starting in January 1951.



TRANSPORTER

## THE 100,000TH VOLKSWAGEN



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	90,038

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	13,322
Salaried staff	1,644
Total	14,966

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	
Sales revenue	411
Profit	3.8

## PRODUCTION OF SELECTED MODELS

	Saloon	Transporter
	81,979	8,059

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	60,769
Abroad	29,387
Total	90,156

1950



## 1951

**JANUARY 4** Bruno Gründel becomes Chairman of the Works Council.

**MARCH 29** The Korean War increases international demand for raw materials and leads to a temporary acute coal shortage, causing Volkswagen problems in acquiring body panels. Car production in Wolfsburg has to be shut down for a few days. Aside from short periods in the Summer of 1951, material shortages force the factory into short-time working until March 1952.

**MAY 9** Hugo Bork is elected Chairman of the Works Council, a position he holds until 1971.

**MAY 22** An Advisory Board of Volkswagenwerk GmbH is formed under the chairmanship of Heinz M. Oeftering. Pursuant to the Works Constitution Act passed in 1952, the Advisory Board is replaced by a Supervisory Board on August 28, 1953.



BODY SHOP





HUGO BORK



HEINZ M. OEFTERING

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	105,712

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	12,338
Salaried staff	1,809
Total	14,147

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	
Sales revenue	486
Investments	37.7
Profit	1.9

## PRODUCTION OF SELECTED MODELS

	Saloon	Transporter
	93,709	12,003

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	69,959
Abroad	35,742
Total	105,701

1951

## 1952

**SEPTEMBER 11** With the founding of Volkswagen Canada Ltd. in Toronto, Ontario, Volkswagen begins expanding its sales and customer service network into international markets. This step is necessary because the duty free import of British products puts Volkswagen at a disadvantage, making penetration of the Canadian market difficult. A total of 94 Volkswagens are sold by the end of the year.

**OCTOBER 1** The Volkswagen saloon is fitted with a new instrument panel and two brake lights combined with tail lights and reflectors. A partially synchronised gearbox and improved suspension mark the start of a number of improvements aimed at increasing safety and ride comfort. The split rear window of the "Pretzel Beetle" is replaced on March 10, 1953 by a larger oval-shaped window which gives the "Ovali Beetle" its name.



OVALI



"PRETZEL BEETLE"

## VOLKSWAGEN CANADA



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	136,013

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	15,390
Salaried staff	1,991
Total	17,381

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	
Sales revenue	660
Investments	27.9
Profit	3.5

## PRODUCTION OF SELECTED MODELS

	Saloon	Transporter
	114,348	21,665

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	89,060
Abroad	46,881
Total	135,941

1952

## 1953

**JANUARY 28** In order to ease the chronic housing shortage in Wolfsburg, the non-profit community housing corporation VW-Wohnungsbau-Gemeinnützige Gesellschaft mbH is established, and builds 1,400 apartments by the end of the year. The rapid growth of the workforce makes the creation of new housing an urgent task, especially because public funds for these activities are limited. More than half of Volkswagen's employees live outside Wolfsburg and have to commute to work from their homes, often up to 80 kilometres away. Building company housing becomes an important instrument in creating a permanent core workforce.

**MARCH 23** Volkswagenwerk GmbH sets up its first foreign production company, Volkswagen do Brasil Ltda., in São Paulo. The Brazilian government's restrictive import policy, which aims at promoting the domestic car industry, means that the only way of achieving long-term success in the South American market is to manufacture directly in the country. Volkswagen has an 80 percent share in the Brazilian firm which, from July 12, 1955, is transformed into a stock corporation. Initially the imported component kits are assembled in a rented facility. At the end of 1956, assembly is transferred to a newly built factory in São Bernardo do Campo. In order to comply with the required level of domestic manufacturing, the site is rapidly transformed from an assembly plant into a production facility.

**NOVEMBER 30** An Economic Committee based on equal representation convenes for the first time at Volkswagen, tasked with keeping the Works Council informed about management policies.



CONSTRUCTION OF COMPANY HOUSING  
IN WOLFSBURG

ASSEMBLY PLANT IN BRAZIL



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	179,740

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	18,318
Salaried staff	2,251
Total	20,569

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	815
Investments	56.6
Profit	3.5

## PRODUCTION OF SELECTED MODELS

	Saloon	Transporter
	151,323	28,417

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	106,883
Abroad	68,754
Total	175,637

1953

## 1954

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**JANUARY 1** The dealership organisation in Germany comprises 66 main distributors, 239 dealers and 531 contract service centres. The central registry established at the year-end lists 63 sales managers and 1,997 sales executives in the field sales organisation.

**SEPTEMBER** Managing Director Heinrich Nordhoff submits his plan for further rationalisation and expansion of capacities to the Supervisory Board. In his submission, Nordhoff requests efficiency investments in cutting and non-cutting machining, as well as an expansion of capacities by around a quarter to a daily output of 1,250 passenger cars and 220 Transporters. By modifying the organisational structure, moving to conveyor belt assembly and automating production, the company completes the transition to large-scale mass production over the the following years.

**OCTOBER 1** There are 82 sale agencies outside of Germany, including subsidiaries in Brazil and Canada. 70 percent of foreign sales are generated by the successful general importers in Europe, especially in Belgium, Sweden, the Netherlands and Switzerland. Global market orientation is profitable for both the company and its distributors.



## MASS PRODUCTION

### VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	242,373

### PRODUCTION OF SELECTED MODELS

Saloon	Transporter
202,174	40,199

### WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	22,719
Salaried staff	2,564
Total	25,238

### VEHICLE SALES

Volkswagenwerk GmbH	
Germany	137,000
Abroad	108,839
Total	245,839

### FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	1,064
Investments	87
Profit	4.3



## 1955

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**FEBRUARY 10** Sick pay is introduced for wage-earner employees of Volkswagenwerk GmbH. The right, embedded in the collective pay agreement, is accompanied by a number of new fringe benefits that imbue Volkswagenwerk GmbH with a distinctive employment profile during the 1950s.

**JULY 14** The Ghia Coupe, developed in co-operation with the coachbuilder Karmann, is launched in Georgsmarienhütte, Lower Saxony. With its stylish Italian design, 30 horsepower engine, hydraulic brakes and front axle stabiliser, the two-seater is a highly sporty model. Based technically on the export model, the Ghia Coupe features indicator lights as opposed to the Volkswagen saloon's mechanical trafficators. Priced at DM 7,500, the Type 14 sells 664 units in Germany in its first year.

**JULY 21** Volkswagen United States Inc., based in New York, is founded as a market research and observation instrument. On August 10, 1955, the US Volkswagen subsidiary acquires a factory in New Brunswick, New Jersey, from the Studebaker-Packard Corporation in order to begin assembly of Volkswagens in the USA. The plans are cancelled however. A study of the projected costs reveals that the high wages paid in the USA would make it impossible to manufacture a product of consistent quality at a competitive price.

**AUGUST 5** Employees and dealers from Germany and abroad celebrate the production of the one millionth Volkswagen in Wolfsburg.

**OCTOBER 27** As the successor to Volkswagen United States Inc., which will later be dissolved, Volkswagen of America, Inc. is founded in Newark, New Jersey. After plans for production in the USA are cancelled, the company assumes the functions of a sales organisation. Its head office is moved to Englewood Cliffs, New Jersey. With offices in New York and in San Francisco, the US Volkswagen subsidiary handles the import of Volkswagens starting in January 1956, reorganising the dealer network based on stringent service requirements and overhauling the presentation of the brand. As most dealers also represent a number of other manufacturers apart from Volkswagen, it is impossible for them to fulfil the obligatory after-sales responsibilities to customers. In 1956, 42,884 Beetles and 6,666 Transporters are sold in the USA. The sales and customer service network, which now embraces 15 main distributors and 342 dealers, is rapidly enlarged in line with the continuously growing sales figures.





NEW PRODUCTION RECORD



VOLKSWAGEN KARMANN GHIA COUPE

## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	329,893

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	28,606
Salaried staff	2,964
Total	31,570

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	1,408
Investments	173
Profit	6.3

## PRODUCTION OF SELECTED MODELS

	Saloon	Transporter
	279,986	49,907

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	150,397
Abroad	177,657
Total	328,054

1955

## 1956

**MARCH 8** After a one-year construction period, the new plant in Stöcken near Hanover starts producing the Transporter model. The Supervisory Board agreed to the decentralisation of production on January 24, 1955, because higher demands required increased capacity, which could no longer be met because of the limited pool of workers in the Wolfsburg area. By transferring production to Hanover, it was now possible to expand Beetle production in the plant at Wolfsburg, thus keeping up with increasing demand. With a workforce of 6,044 employees, yearly production of the Transporter rises from 62,500 to 91,993 vehicles in 1957. About 60,000 units are exported. In the autumn of 1957, construction of a new engine plant begins in Hanover, which starts production on March 25, 1959.

**SEPTEMBER 10** In order to strengthen its position on the South African market, Volkswagenwerk GmbH acquires 38 percent of the shares in South African Motor Assemblers and Distributors Ltd. (SAMAD), a mainly British-owned company in Uitenhage which imports Volkswagens in kit form and then independently assembles and sells them. In 1957, the share-holding is increased to 57.6 percent.



QUALITY ASSURANCE IN UITENHAGE

## HANOVER PLANT



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	
	395,690

## WORKFORCE

Volkswagenwerk GmbH	
Wage-earners	32,269
Salaried staff	3,403
Total	35,672

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	1,715
Investments	181
Profit	6.9

## PRODUCTION OF SELECTED MODELS

Saloon	Transporter
333,190	62,500

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	176,067
Abroad	217,683
Total	393,750

1956

## 1957

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**APRIL 1** An agreement between the Works Council and Volkswagen management reduces working hours for shift-workers to 40 hours a week, and for standard employees to 42.5 hours a week. As a result, most employees now work a 40-hour week with no reduction in pay.

**APRIL 1** Alfred Hartmann becomes Chairman of the Volkswagenwerk GmbH Supervisory Board.

**SEPTEMBER 19** The two-seater Volkswagen Karmann Ghia convertible is launched in Osnabrück. Built by Karmann in Osnabrück, and technically identical to the coupe, the elegant model priced at DM 8,250 is targeted at the growing number of fresh-air fans.

**DECEMBER 6** Volkswagen establishes Volkswagen (Australasia) Pty. Ltd., based in Melbourne, to produce Volkswagens with locally sourced components. In 1958, the Australian Volkswagen subsidiary acquires the stock of the former authorised importer, Volkswagen Distributors Pty. Ltd., which now assumes responsibility for service. After Volkswagen Australasia begins assembling vehicles from kits in January 1959, production capacity is increased by the construction of new factory buildings. The acquisition of Allied Iron Founders Pty. Ltd. in 1959 serves the same purpose. The company is renamed Volkswagen Manufacturing (Australia) Pty. Ltd. and in 1962, together with Volkswagen Australasia, switches its operations from assembly to production. The Australian subsidiaries add reconditioning of replacement engines to their portfolio in 1963.

**DECEMBER 31** After the release of the last remaining site from British control, the production line in Braunschweig is modified to meet the demands of Fordist mass production in Wolfsburg and Hanover. A phase of rationalisation follows which is accompanied by an expansion of production capacities and manufacturing processes. Shed 3, covering 25,000 square metres, is completed by the end of 1957 and takes on the construction of front axles for the saloon previously located in Wolfsburg.

## VOLKSWAGEN KARMANN GHIA CONVERTIBLE



ALFRED HARTMANN



## VEHICLE PRODUCTION

Volkswagenwerk GmbH
472,554

## PRODUCTION OF SELECTED MODELS

Saloon	Transporter
380,561	91,993

1957

## WORKFORCE

Volkswagenwerk GmbH	Group
Wage-earners	37,500
Salaried staff	3,750
Total	41,290
	43,359

## VEHICLE SALES

Volkswagenwerk GmbH	
Germany	203,018
Abroad	270,987
Total	474,005

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	2,037
Investments	211
Profit	7.4

## 1958

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**JUNE 16** Hans Busch becomes Chairman of the Volkswagenwerk GmbH Supervisory Board.

**JUNE 23** Engine reconditioning is moved from Wolfsburg to Altenbauna near Kassel. After a year of rebuilding and repairing the former aircraft engine plant bought from Henschel & Sohn GmbH, a new factory is opened to supply the Volkswagen organisation with reconditioned engines, axles and other parts. The workforce increases in 1959 to 1,124 employees, who recondition 430 engines and 130 axles a day. During the next few years, the buildings are gradually replaced by new ones. Shed 1 is built in 1959/60 for the production of gearboxes. In July 1964, shed 2 goes into operation. In addition to frame construction and a press shop, it houses the extensive parts store and packing department.



HANS BUSCH

## ENGINE RECONDITIONING



## KASSEL PLANT



## VEHICLE PRODUCTION

Volkswagenwerk GmbH	Group	Saloon	Transporter
553,399	557,088	451,526	105,562

## PRODUCTION OF SELECTED MODELS

1958

## WORKFORCE

Volkswagenwerk GmbH	Group
Wage-earners	39,794
Salaried staff	4,210
Total	44,004

## VEHICLE SALES

	Volkswagenwerk GmbH	Group
Germany	235,615	235,615
Abroad	315,717	319,372
Total	551,332	554,987

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	2,423
Investments	268
Profit	319.3



## 1959

**AUGUST 17** Volkswagen of America, Inc. starts a professional advertising campaign in order to regain the market shares lost to European competitor Renault as well as to US manufacturers as a result of their compact car sales push. In co-operation with the advertising agency Doyle Dane Bernbach Inc., Volkswagen initiates a successful and legendary ad campaign. This produced a number of classics, such as “Think small”, “Lemon”, and “Nobody is perfect”. The market segment targeted by Volkswagen is not substantively affected by the larger US compact car manufacturers. While European competitors suffer a decline in sales, Volkswagen is able to increase its import share from 20 percent to 32 percent in 1960.

**NOVEMBER 18** The new car factory in São Bernardo do Campo, Brazil, is officially opened. The former assembly plant is now an independent manufacturing unit, with a press shop, body shop, paint shop, an engine construction line, assembly line, and an electroplating department. Transporter production had started back in September 1957. Once the shed for mechanical production is put into operation in 1960, the share of Brazilian parts used in saloon production increases to 90 percent. One year later, Volkswagen do Brasil leads the Brazilian car industry, selling a total of 47,320 vehicles and with a 67 percent increase in sales over the previous year. Its market share grows to 41 percent, while the workforce of more than 8,000 now produces nearly 220 vehicles each working day.

**It isn't so.**

That's what you've been saying in your mind about Volkswagen. But now you'll have to change your mind. The VW engine is the most efficient. The motor is built over in France. It's not because the Volkswagen is so reliable. The engine is so fine that it's used in many other cars and trucks. It's not just a car. It's a car that's built to last. It's not just a car. It's a car that's built to last.

Without coming up to speed. And it's not just a car. It's a car that's built to last. It's not just a car. It's a car that's built to last.

It's not just a car. It's a car that's built to last. It's not just a car. It's a car that's built to last.

It's not just a car. It's a car that's built to last. It's not just a car. It's a car that's built to last.

It's not just a car. It's a car that's built to last. It's not just a car. It's a car that's built to last.

VOLKSWAGEN ADVERTISING IN THE USA



OPENING OF THE PLANT  
IN SÃO BERNARDO DO CAMPO



VEHICLE PRODUCTION

Volkswagenwerk GmbH	Group	Saloon	Transporter
696,860	705,243	575,407	129,836

PRODUCTION OF SELECTED MODELS

1959

WORKFORCE

Volkswagenwerk GmbH	Group	Volkswagenwerk GmbH	Group
Wage-earners	49,372	Germany	292,147
Salaried staff	4,748	Abroad	412,531
Total	54,120	Total	704,678

VEHICLE SALES

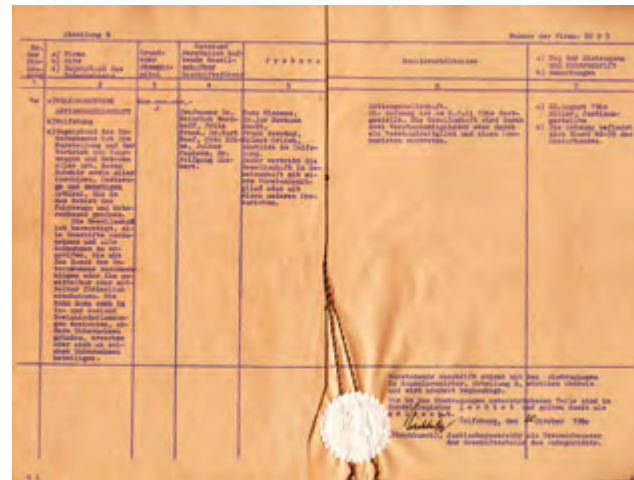
FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk GmbH	Group
Sales revenue	3,055
Investments	444
Profit	68.3

## 1960

**MARCH 11** Volkswagen France S.A. is founded in Paris to service the French market after the government relaxes import controls from Common Market countries. Volkswagen takes third place behind Fiat and Opel in passenger car imports to France in 1960.

**AUGUST 22** Volkswagenwerk GmbH is transformed into a stock corporation, and the new Volkswagenwerk Aktiengesellschaft is entered in the Register of Companies at the District Court in Wolfsburg. On July 21, 1960, the West German parliament voted by a large majority to approve the Law relating to the privatisation of share rights in Volkswagenwerk GmbH. Pursuant to that law, 60 percent of the company's stock is sold as so-called "people's shares". The remaining 40 percent is divided equally between the Federal Government and the State of Lower Saxony, thus safeguarding state influence over the company.



ENTRY IN THE REGISTER OF COMPANIES



## COMPANY ASSEMBLY

## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Saloon	Transporter
865,858	890,673	739,455	151,218

## PRODUCTION OF SELECTED MODELS

1960

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	58,475	Germany	374,478
Salaried staff	5,664	Abroad	489,272
Total	64,139	Total	863,750
			888,507

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	3,933
Investments	465
Profit	72.2



1961-1972



## 1961–1972

### Boom and Crisis in the One-Product Business

Mass production of the Beetle and the flourishing export business helped Volkswagenwerk AG reach a leading position in Germany. Thanks to high productivity, the company built twice as many cars in 1964 as the second-ranked manufacturer in Germany's production statistics.

Volkswagen took almost 33 percent of the passenger car market in Germany, and more than half of newly registered vans bore the Volkswagen badge. Volkswagen withstood the transition from a seller's to a buyer's market during the early 1960s without a slump in sales by adding the VW 1500 to its product range and by increasing its presence on international markets. In 1963, the world's largest car exporter sold about 60 percent of its production to European markets and to the USA, where the Beetle's popularity was as great as back home. After four good years with average growth rates of 20 percent, exports to the USA rose to almost 330,000 vehicles in 1964. At the end of the year, the plant constructed in Emden began assembling the Type 1 in order to assure supplies to the North American market.



PRODUCTION OF THE VW 1500

Exports within Europe were giving cause for concern, however. On the one hand, protectionist policies made it difficult for Volkswagen to access some markets. It was especially difficult to gain ground in Italy and France during the early 1960s. On the other hand, competition grew markedly in Volkswagen's main European markets as other manufacturers raised the quality and range of features of their vehicles to Volkswagen standards. Even in a domestic market long dominated by the Beetle, times were changing. Opel and Ford launched large 1.5 litre car models, and their appearance appealed to a wider section of consumers than the more compact models. In direct competition with those vehicles, sales of the initially successful VW 1500 did not meet expectations in 1964. The product diversification failed to achieve consistent success.

In order to improve competitiveness, Volkswagen examined the possibilities for co-operative ventures with Daimler-Benz AG. The restructuring undertaken in 1964 left the Wolfsburg car-maker with production of vehicles of less than 2 litre capacity. Volkswagen used the opportunity to acquire an initial 75.3 percent share in the Daimler-Benz subsidiary Auto Union GmbH on January 1, 1965. The business's assets included a yearly capacity of 100,000 vehicles, 11,000 employees, a sales network with 1,200 dealerships and a new generation of engines. On the debit side, however, were large stockpiles of vehicles and a substantial financial crisis, because Auto Union GmbH was building a comparatively low-quality yet costly vehicle, which was consequently difficult to sell. Immediate organisational and model policy changes were needed to get Volkswagen's new subsidiary out of the red. The Audi 72, quickly remodelled by the designers from the DKW F 102 and built at the plant in Ingolstadt starting in September 1965, failed to deliver a financial breakthrough. The model did, however, form the core of a new range maintained by Audi as an independent brand within the Volkswagen Group.

With reduced earnings, Volkswagen confronted the first post-war recession in 1966/67, which heralded the end of an exceptional and protracted phase of prosperity and the return to normal economic conditions. Declining demand on the domestic market forced the company to reduce the number of vehicles manufactured in 1967: Type 1 production was cut by 14 percent and that of the VW 1600 by 35 percent.

Although both the economy in general and Volkswagen's sales figures were improving by the end of the year, the brief selling crisis had a lasting impact.

It demonstrated the economic susceptibility of large-scale mass production, which was coming under additional pressure due to changes in production and model policy. The production depth now achieved and the wide variety of models and variants built up by the company over the previous years had led to a decrease in productivity and reduced the company's efficiency. Volkswagen's main competitive advantage – the mass production of one model – now threatened to become a serious disadvantage. Increasing motorisation and greater competition on key markets reduced the possibility of compensating for lost income by growing sales as had been done before or by raising prices.

FEDERAL PRESIDENT LÜBKE IN  
CONVERSATION WITH NORDHOFF  
AND HAHN



It was during this period of radical change that the Heinrich Nordhoff era ended. His commitment to the Volkswagen saloon, which during his 20-year leadership was technically perfected, as well as to the combination of mass production and global market orientation had led Volkswagen to the pinnacle of the European car industry. In order to maintain that position, far-reaching changes were necessary after Nordhoff's death.

Volkswagen introduced a number of cost-cutting measures in 1968 aimed at improving yields. Along with the rationalisation of production, the company invested in expanding research and development, reasserting the importance of those functions. Greater focus was placed on the recruitment of technicians and engineers and the systematic development of management staff. With the start of production of the VW 411 in September 1968, the Wolfsburg car-maker continued to move away from its dependency on the Type 1. However, with its daily production of 4,200 units, that model still remained the lifeblood of the company. In order to maintain its competitiveness, Volkswagen developed the

VW 1302, featuring a new chassis and twice as much boot space, which went into mass production as a saloon and convertible in 1970. All the efforts made could not, however, prevent the Type 1, with its air-cooled rear-mounted engine, from losing its appeal. A new generation of small and mid-sized cars with water-cooled engines, front-wheel drive, lots of interior and boot space and new styling was conquering the market. Sales of the Type 1 dropped after 1970, though the losses were balanced by the success of the South American subsidiaries and of the now merged Audi NSU Auto Union AG, whose models served a growing market segment. Volkswagen concentrated its activities on the urgent task of developing a new range of products.

PRODUCTION OF THE VW 411  
IN WOLFSBURG





Sales problems also arose abroad, intensified by the relaxing of exchange rate controls. The revaluation of the Deutschmark impacted on Volkswagen exports and led to stronger competition from foreign car-makers on the domestic market as demand fell. Volkswagen responded to changes in exchange rate policy by increasing prices, especially as higher production costs and lower yields left little leeway for any other course of action. As a result, prices increased relative to other car-makers, and the company's competitive position on key volume markets deteriorated. This was true in particular of Volkswagen's exports to the USA, the main export market, where Volkswagen of America's profits and sales were curtailed by exchange rate linked cost handicaps compared to Japanese and US car-makers. Between 1970 and 1972, Volkswagen of America's sales dropped from about 570,000 vehicles to just under 486,000. To make matters worse, the Beetle's popularity among Americans began to decline as the model failed to keep up with progress in terms of drive technology, fuel economy and safety.



WIND TUNNEL

Volkswagenwerk AG confronted the emerging crisis with a combination of cost-cutting measures in all corporate divisions and heavy investment in the development of the new model range and the updating of production processes. At its core, the extensive rationalisation programme was aimed at introducing new technical and organisational systems in the production process, with computer technology delivering the key momentum for innovation. IT could now be used to manage production processes, greatly enhancing rationalisation there, as in the design function. Volkswagen had thus put all the essential elements of successful crisis management into place. All hopes now rested on the new generation of Volkswagens.

# 1961

**JANUARY 1** The partial privatisation of Volkswagen results in a new “people’s share” in the Federal Republic of Germany. By March 15 of this year, Volkswagen shares with a total nominal value of DM 360 Million are sold at a unit price of DM 350. The proceeds from the sale are transferred to “Stiftung Volkswagenwerk”, a charitable foundation under civil law with independent decision-making powers set up in Hanover in 1961 to promote scientific research.

**SEPTEMBER 21** At the IAA International Motor Show in Frankfurt, Volkswagen presents the VW 1500, a mid-class saloon with a 45 horsepower boxer engine in the rear. The VW 1500, designated internally as the Type 3, is marketed as offering “refined elegance”. The “common-sense car” is available from DM 5,990, and is targeted at “discerning motorists” and “prudent spenders”. In February 1962, the estate version is launched with the name “VW Variant”. With the launch of the VW 1500, Volkswagen introduces a “big brother” for its famous and highly successful model.

**SEPTEMBER 21** The VW 1500 Karmann Ghia Coupe premieres at the IAA International Motor Show. Technically based on the new VW 1500, the two-door, two-seater model is priced at DM 8,750. Extolled in its sales brochure as embodying “beauty in perfection”, its styling originates from Ghia in Turin, its body from Karmann in Osnabrück, and its chassis, engine and gearbox from Volkswagen. Production volumes of 8,653 units in 1962 are less than expected.

**OCTOBER 18** After 12 years, a settlement is reached between Volkswagenwerk AG and the former KdF instalment scheme savers, who had gone to court to demand the delivery of Volkswagen cars in accordance with the deals made with the German Labour Front. Depending on the sum accumulated, the savers receive a maximum discount of DM 600 on the list price for the purchase of a Volkswagen car or a cash settlement of up to DM 100.



VW 1500

## VW 1500 KARMANN GHIA COUPE



## VOLKSWAGEN SHARE



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
959,773	1,007,113	827,850	168,600	10,663

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	62,892	Germany	427,251
Salaried staff	6,554	Abroad	533,420
Total	69,446	Total	960,871

## VEHICLE SALES

1961

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	4,423
Investments	596
Profit	71.9

## 1962

**JANUARY 17** After the wall erected between East and West Germany in August 1961 had ended migration from the German Democratic Republic, a first train carrying workers recruited from Italy in order to meet labour needs arrives in Wolfsburg. The number of foreign workers employed by Volkswagen surges in 1962 from 730 to 4,494. By the end of the year, 3,188 Italians are employed in the Wolfsburg plant, living in the “Italian Village” erected specially for them.

**OCTOBER 2** The one millionth Volkswagen Transporter rolls off the assembly line at the Hanover plant.

**DECEMBER 20** Volkswagen strengthens its commitment to the housing market by establishing VW-Siedlungsgesellschaft m.b.H., based in Wolfsburg, in order to take advantage of any opportunities that might come up to build or acquire housing for the workforce. In 1962, Volkswagen invests about DM 40 million in housing projects, DM 15 million of which is assigned to accommodation for Italian workers near the Berlin Bridge in Wolfsburg. Although the housing offered by the company cannot keep up with the growing workforce, it does help to provide the German plants with workers and keep labour turnover to a minimum. The non-profit housing corporation limits its own building activities in 1964 in favour of administering construction projects of VW-Siedlungsgesellschaft m.b.H., whose capital is doubled to DM 20 million. At this time, the portfolio of the two companies comprises a total of 7,646 apartments in Wolfsburg, Hanover and Kassel.

**Es gibt Formen, die man nicht verbessern kann.**

Was sollten wir an der Form des VW verbessern? Die hat Sie und Frank Sie entwickelt ohne Ideen? Eine gewisse Sensation und Ideen. Die sogenannte Wandelhaube gibt ganz viele Ideen vor dem Wagen. Die Kofferdach kann man nicht verbessern. Oben über beiden Wagen müssen sie stehen. Ein Kan-

Wagen von heute (DM 1525) Grundform. Eine Form ist unveränderlich. Die Rollen ist vollkommen da. Also ist gibt und wird an diesen Wagen. Also, das ist die VW Form ist perfekt. Was ist notwendig ist das gut. Das ist ein Modell nicht. Wie das ist der Kolben.

Wie ändern diese Form mehr an den Kunden helfen. Wenn wir aber einen Grund haben, das VW von heute können sie verbessern, dann hat mit dem. Sie kann haben mit 2000 Grund gefahren. Sie haben sie das 11. verbesserten Form. Heute. Oben an sie zu verbessern.

ADVERTISING MESSAGE: THE BEETLE SHAPE

## ITALIANS AT THE ACCOMMODATION AT THE BERLIN BRIDGE



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,112,424	1,184,675	877,014	180,337	127,324

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	70,838	Germany	485,064
Salaried staff	7,166	Abroad	627,613
Total	78,004	91,220	Total
			1,112,677
			1,183,665

## VEHICLE SALES

1962

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	5,518
Investments	338
Profit	84.1

## 1963

**JANUARY 15** The Volkswagen transporter ship “Johann Schulte” leaves the shipyard. With a loading capacity of 1,750 Volkswagens and a speed of 17.25 knots, the ship – the largest and fastest ever built for Volkswagen – expands the urgently needed transport capacity for overseas exports.

**APRIL 8** Because of the sustained rise in production and a chronic labour shortage in Wolfsburg, it becomes necessary to streamline and automate production. The Wolfsburg plant automates body shell assembly by introducing a new 180 metre long special transfer line, which can produce 3,300 units a day in two shifts. The new machinery, which took one year to install, handles 16 different operations. For example, the front and rear sections of the vehicle are welded to the roof by some 300 spot welds to within millimetre accuracy. The 440 workers previously needed to carry out these tasks can now help increase capacity levels in other production areas. In order to supply the transfer line with enough body parts, 57 new large presses are set up. The paint shop is modernised and expanded by adding two new lines. By the end of December 1963, the Wolfsburg plant employs 43,722 people.



A KEY AUTOMATION STEP: THE TRANSFER LINE



## LAUNCH OF THE JOHANN SCHULTE



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,132,080	1,209,591	838,488	189,294	181,809

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	72,887	Germany	445,250
Salaried staff	7,539	Abroad	685,763
Total	80,426	Total	1,131,013

## VEHICLE SALES

1963

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	5,775
Investments	400
Profit	96

## 1964

**JANUARY 15** The establishment of Volkswagen de Mexico, S.A. in Puebla marks Volkswagen's transition from assembly to production after new import controls had made importing Volkswagen vehicles into Mexico increasingly difficult. The new Volkswagen subsidiary acquires Promexa S.A., the former Volkswagen distributor in Mexico, and continues assembling Volkswagens. In 1965, its sales increase by 59 percent. In order to meet growing demand, a new production site is established in Puebla. It goes into operation in November 1967, utilising components from Mexican suppliers in accordance with government regulations. With 22,220 vehicles sold, Volkswagen de Mexico attains a market share of 21.8 percent in the following year.



VOLKSWAGEN DE MEXICO





PRODUCTION AND SHIPPING AT THE EMDEN PLANT

**JULY 16** In order to meet the government's target of increasing the domestic share of production to 95 percent within five years, Volkswagenwerk AG undertakes a re-organisation of its Australian operation: Volkswagen (Australasia) Pty. Ltd. is renamed Volkswagen Australasia Ltd. and takes over the complete production facilities of Volkswagen Manufacturing (Australia) Pty. Ltd., which becomes Volkswagen (Distribution) Pty. Ltd. Direct sales to the states of Victoria and Western Australia are transferred from Volkswagen (Sales) Pty. Ltd., which was dissolved in 1964, to Volkswagen (Distribution) Pty. Ltd. 32,678 Volkswagens are sold in Australia in 1964, including 22,943 of the Type 1 and 6,978 of the VW 1500. Production rises to 37,397 units, including 25,298 of the Type 1. Of the total, 1,906 complete vehicles and 1,704 CKD kits are exported. In spite of all of these efforts, the situation of Volkswagen's Australian subsidiary worsens, because its production is cost-intensive and its capacity is not being fully utilised, while the vehicles it is producing do not entirely conform to customers' tastes. Competing Japanese models are designed especially for the Australian market and are cheaper. As a result, Volkswagen Australasia's sales drop dramatically to 19,586 vehicles by 1966. Sustained losses and strong competition, especially from Japanese manufacturers who have an advantageous position on the Australian market thanks to intensive bilateral trade relations, force Volkswagen to stop its own production operations at the end of February 1968. Volkswagen Australasia is renamed Motor Producers Ltd., and returns to assembling cars from imported CKD kits.

**DECEMBER 8** The plant in Emden, constructed especially for overseas exports, begins producing the Type 1. The manufacturing structure of the new site, which encompasses four sheds covering 140,000 square metres, is designed with exports for the North American market in mind. The assembly plant receives bodies from Wolfsburg, engines from Hanover, gearboxes and frames from Kassel and axles from Braunschweig. Only the seats and wiring harnesses are produced locally. Over 500 vehicles roll off the assembly line each day. They are shipped from the company's own port directly to the USA and Canada. By March 1966, the plant has expanded its assembly capacity to 1,100 vehicles a day. The workforce has grown correspondingly from 790 to 4,487 by the end of 1966.

## VOLKSWAGEN AUSTRALASIA PLANT



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,317,295	1,410,715	949,370	200,325	262,020

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG		Group
Wage-earners	79,662	Germany	517,956	517,956
Salaried staff	8,464	Abroad	797,468	888,154
Workforce of foreign group companies	16,485	Total	1,315,424	1,406,110
Total	88,126			

## VEHICLE SALES

1964

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	6,788
Investments	627
Profit	120

## 1965

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**JANUARY 1** Auto Union GmbH in Ingolstadt is acquired by Volkswagenwerk AG from Daimler-Benz AG in three share tranches. By assuming ownership of this traditional and innovative brand, the Volkswagen Group widens its product range. At the same time, Volkswagen also gains access to a new generation of engines. The Audi, based on the DKW F 102 and produced from September 1965 onwards, is notable for its water-cooled 1.7 litre medium-pressure engine, front-wheel drive, a state-of-the-art chassis and a top speed of 150 kilometres per hour. Auto Union joins the Volkswagen Group as an independent subsidiary, initiating the development of the Group's present-day multi-brand strategy.

**FEBRUARY 8** Volkswagen of America, Inc. begins wholesaling on its own account with a view to cutting distribution costs and exerting a direct influence on distributors. In Jacksonville, Florida, the company establishes Volkswagen Southeastern Distributor, Inc., taking over the business from the previous distributor. Four further distributors managed by the US subsidiary have been set up by 1969: Volkswagen Northeastern Distributor, Inc. registered in Boston, Massachusetts, in 1966; Volkswagen North Central Distributor, Inc. in Deerfield, Illinois, in 1967; Volkswagen South Atlantic Distributor, Inc. in Washington D.C. and Volkswagen South Central Distributor, Inc. in San Antonio, Texas, in 1969.

**MARCH 9** The official key handover ceremony to representatives of the Deutsche Bundespost German postal service marks the delivery of the first of Volkswagen's small delivery van Type 147. Developed specially with the needs of the postal service in mind, and technically based

on the Type 1, the van is built by Westfalia Werke in Rheda-Wiedenbrück. The model nicknamed Fridolin, with its two wide sliding doors and tailgate, offering a 1.86 square metre load space, 2.3 cubic metres of loading volume and a 410 kg payload capacity, is attractive to businesses as well as public-sector users. The delivery van's 34 horsepower petrol engine achieves a top speed of 100 km/h, with fuel consumption of 7.8 litres per 100 kilometres. Despite its low selling price of DM 6,500, sales are modest. By the time production ends in 1974, a total of 6,123 have been built.

**JULY 12** Volkswagen establishes Wolfsburger Transportgesellschaft mbH to meet the needs of its growing transport division, which now has 1,700 employees and a fleet of 55 ships. Volkswagenwerk AG owns 90 percent of the shares and 10 percent belong to the likewise newly established Volkswagen subsidiary HOLAD Holding & Administration AG, an international holding company based in Basle, Switzerland. The legal demerger of the freight business had become prudent because of the impending increase in the USA's low-cost import duties, which would have impaired competitiveness. Wolfsburger Transportgesellschaft handles air and sea transportation as well as other freight operations primarily for Volkswagenwerk AG. It starts operations early in October 1965 with a staff of 59. By the end of the year, it has transported 168,000 Volkswagens overseas by charters and scheduled shipping.

**DECEMBER 14** A state-of-the-art climatic wind tunnel goes into service in Wolfsburg as a part of an expanding development centre, in which engineers and technicians will in future undertake basic research and product development.



FACTORY GATE IN  
INGOLSTADT

TYPE 147 SMALL VAN



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,447,660	1,594,861	1,090,863	189,876	261,915

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	84,919
Salaried staff	9,424
Workforce of foreign group companies	18,625
Total	94,343
	125,157

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	592,485	632,671
Abroad	851,114	963,693
Total	1,443,599	1,596,364

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	7,458
Investments	485
Profit	120

1965

## 1966

**JUNE 29** Josef Rust becomes Chairman of the Volkswagenwerk AG Supervisory Board.

**OCTOBER 18** Volkswagen Leasing GmbH, the first German car leasing company, is founded in order to win business customers by integrating service and insurance. Volkswagen decides to take this step because 10 percent of all new car sales in the USA are already being channelled through leasing companies. At first, Volkswagen Leasing GmbH gears its activities to the needs of fleet customers who are increasingly demanding leasing options. Later, private customers are also increasingly attracted to leasing.

**NOVEMBER 21** Volkswagen's South African subsidiary SAMAD, in which Volkswagenwerk AG owns a 63 percent interest, is renamed Volkswagen of South Africa Ltd. It employs 2,458 people and sells 21,888 vehicles in 1966, an increase of about 21 percent. Its share of the passenger car market rises to 13.4 percent and to 10 percent in the light commercial vehicles segment. In 1974, Volkswagenwerk AG becomes the sole owner of the South African subsidiary.



PRODUCTION FACILITY OF VOLKSWAGEN  
OF SOUTH AFRICA





THE LOGO OF VOLKSWAGEN  
LEASING GMBH



JOSEF RUST

#### VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,476,509	1,650,487	1,080,165	191,373	311,701

#### PRODUCTION OF SELECTED MODELS

#### WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	81,564
Salaried staff	10,081
Workforce of foreign group companies	21,446
Total	91,645
	124,581

#### VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	494,850	536,394
Abroad	964,576	1,068,873
Total	1,459,426	1,605,267

1966

#### FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	7,797
Investments	703
Profit	120
	9,998
	872
	348

## 1967

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**JANUARY 1** In accordance with an agreement between Volkswagen and the IG Metall metalworkers' union, the working day of the regular shift is reduced to eight hours. All Volkswagen employees now work a 40-hour week with no reduction in pay.

**JANUARY 2** Volkswagenwerk AG introduces short-time working due to the declining demand for cars on the domestic market. During the recession of 1966/67, heralding the end of the post-war Economic Miracle, the Volkswagen Group suffers its first selling crisis. Production drops by almost 300,000 vehicles in 1967, and unit sales fall by more than 200,000. In order to boost demand, Volkswagen offers a specially priced "economy Beetle", the VW 1200, selling at DM 4,485.

**AUGUST 3** The second generation of the Transporter is presented to German and international dealers at the City Hall in Hanover. Built at the Hanover factory, the second-generation model is still a typical Transporter, despite its new face and curved windscreen, the air vents below the windscreen, and its larger size. The spacious cab offers the comfort of a car, while the new instrument panel is highly ergonomic in design. Another new standard feature is the sliding door. Fitted out as a 1-tonne delivery van, an estate with a 5 cubic metre loading volume or with seating for up to 9 people, the Transporter is still a much in-demand master of versatility. Its rear-mounted 47 horsepower boxer engine achieves a top speed of 105 km/h, while fuel consumption of 10.4 litres per 100 kilometres keeps running costs down. With an entry-level price of DM 6,680 for the van, the model – designated internally as the T2 – is still the market leader

in Germany. Demand driven by the launch of the new generation and the booming economy sees domestic production rise to 228,280 units in 1968.

**SEPTEMBER 14** Volkswagenwerk AG presents a number of technical innovations and design improvements at the IAA Frankfurt International Motor Show. The VW 1500 offers new driving comfort in the Type 1 range thanks to its automatic transmission with a hydraulic torque converter, which makes clutchless operation and multi-range driving possible. The fully automatic version in the VW 1600 series has a torque converter and a self-activating three-speed planetary gearbox. All Volkswagens now feature energy-absorbing safety steering columns, and the automatic vehicles have a double-jointed rear axle. A further widely admired innovation introduced by Volkswagen is the electronic direct fuel injection system. This fuel-saving device is initially installed only in vehicles manufactured for the US market.



## STAND AT THE IAA



## TRANSPORTER



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1500
1,162,258	1,339,823	925,787	162,741	201,800

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	81,636
Salaried staff	10,233
Workforce of foreign group companies	26,179
Total	91,869
	129,111

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	370,513	403,139
Abroad	812,959	995,401
Total	1,183,472	1,398,540

1967

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	6,464
Investments	615
Profit	319
	9,335
	787
	328

## 1968

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**MAY 1** Kurt Lotz, who has been Deputy Chairman of the Board of Management since June 1967, succeeds Heinrich Nordhoff.

**JUNE 14** Volkswagenwerk AG and the IG Metall metal-workers' union sign a rationalisation protection agreement, by which the employee representatives are included in the process of implementing rationalisation measures.

**AUGUST 7** The new VW 411 is presented to the Volkswagen organisation in the Braunschweig City Hall. Available ex-factory as a notchback and a "Variant" estate, as well as in two-door and four-door format, at prices starting from DM 8,165, the spacious touring saloon features an air-cooled rear-mounted engine developing 68 hp, reaching a top speed of 145 km/h. A state-of-the-art multi-link rear axle, anti-roll bars and independent wheel suspension assure safe road-holding. With the rear seat bench folded down, the Variant offers 1,780 litres of luggage space. The mid-class car built at the Wolfsburg factory, featuring automatic transmission and luxury equipment to attract the more discerning clientele, is not as big a hit as was hoped, with sales in 1969 totalling just 46,467 units.

**SEPTEMBER 19** A proving ground is opened near Ehra-Lessien on the southern edge of the Lüneburg Heath. In its final form, the site features a 100 kilometre test track with a variety of surfaces and gradients. The Volkswagen Group tests its vehicles here under everyday conditions with the aid of state-of-the-art equipment. A driving simulator is installed in 1970, enabling test programmes to be carried out without endangering personnel or material. In parallel, Volkswagen increases its resources of qualified staff by hiring engineers and technicians to strengthen research and development activities.

**DECEMBER 16/29** Volkswagenwerk AG and AB Scania Vabis enter into a consortium agreement by which Volkswagen acquires a one third share in Svenska Volkswagen AB, based in Södertälje. The company begins importing and selling Volkswagen and Porsche models in Sweden on January 1, 1969. The share-holding and the 10-year term of the consortium agreement protect Volkswagen's access to the market and to the distribution network of the Swedish main importer in view of the upcoming merger of the Swedish commercial vehicles manufacturer with car-maker Saab. In 1970, Svenska Volkswagen AB acquires Volkswagen i Stockholm AB, which runs the retail operations in the Stockholm area. The company's emerging selling strategy is already recognisable here: in-house control of the wholesaling of Group products on all major European markets.



VW 411



KURT LOTZ

## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1600	VW 411
1,548,933	1,777,320	1,186,134	253,919	244,427	22,922

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	94,010
Salaried staff	10,965
Workforce of foreign group companies	27,808
Total	104,975
	145,401

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	440,090	486,057
Abroad	1,104,752	1,289,455
Total	1,544,842	1,775,512

1968

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	8,388
Investments	508
Profit	339
	11,700
	708
	543

## 1969

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**AUGUST 26** Auto Union GmbH and NSU Motorenwerke AG merge to form Audi NSU Auto Union AG. Volkswagenwerk AG owns 59.5 percent of the shares. The merger of the southern German subsidiaries marks the initiation of a unified Audi brand which culminates in 1977 with the ending of production of the NSU Ro 80. Audi NSU Auto Union AG is renamed Audi AG on January 1, 1985 and the company's headquarters move from Neckarsulm to Ingolstadt.

**SEPTEMBER 1** As a focus for systematic management development, Volkswagen opens the Haus Rhode training centre. While Volkswagenwerk AG plays a leading role in vocational training, there are significant gaps in its training of current and future management staff. Internships, which were previously rare, as well as training seminars and information symposia, are re-organised into a new training and development system by which managers are tutored in the fundamental principles and techniques of leadership and co-ordinated teamwork. The seminars also serve to develop a unified management style. Vocational training and on-the-job education courses are likewise expanded in stages over the following years.

**SEPTEMBER 10** The Type 181 developed on behalf of the German military is launched at the IAA International Motor Show as a "multi-purpose vehicle". With its tried and proven rear-mounted engine design, its 44 horsepower engine and its robust construction, the vehicle delivers astounding off-road capability. The sales brochure talks of a "vehicle for men who have to get through". Highlight features of the open-top four-seater are its forward-folding windscreen, its fold-away PVC all-weather top and slot-in windows for the four doors. The ex-factory list price is DM 8,500.

HOUSE RHODE



**SEPTEMBER 10** At the IAA International Motor Show Volkswagen presents the new VW-Porsche 914, a joint venture between Volkswagenwerk AG and Dr.-Ing. h.c. F. Porsche KG. The sales brochure highlights that the concept underlying the model is founded essentially on Porsche's 30 years of motorsport experience. As a "genuine sports car", the brochure states, the VW-Porsche 914 features a mid-mounted engine providing it with an extremely low centre of gravity and ideal weight distribution. The two-seater is initially marketed in two versions: the 914 and the 914/6. The 914 is powered by an 80 hp 1.7 litre four-cylinder engine with electronic fuel injection, while the 914/6 features an air-cooled 2-litre six-cylinder engine developing 110 hp. The entry-level price is DM 11,954.70. Sales are handled by the joint venture VW-Porsche Vertriebsgesellschaft mbH founded on March 11, 1969.

**OCTOBER 1** Volkswagen of America takes on the importer role for Audi and Porsche models and establishes an independent selling organisation for the two brands, which by the end of 1995 incorporates Audi and Porsche dealers.



VW 181 MULTI-PURPOSE VEHICLE



VW-PORSCHE 914



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1600	VW 411
1,639,630	2,094,438	1,219,314	273,134	267,358	48,521

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	100,437
Salaried staff	12,017
Workforce of foreign group companies	28,659
Total	112,454

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	534,732	669,513
Abroad	1,098,893	1,417,596
Total	1,633,625	2,087,109

1969

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	9,238
Investments	740
Profit	330



## 1970

**MARCH 1** With the takeover of Autovermietung Selbstfahrer Union GmbH, Germany's largest car hire company, the Volkswagen Group strengthens its involvement in this growth sector. Renamed SU interRent Autovermietung GmbH with effect from January 1, 1971, the subsidiary merges in 1988 with Europcar and is renamed Europcar International S.A. Volkswagen owns a 50 percent interest in the company located in Boulogne-Billancourt, which operates in eight countries and has its own fleet of 40,000 vehicles. On January 1, 2000, Volkswagen takes full ownership of the Europcar group.

**AUGUST 7** The first K 70 front-wheel drive and water-cooled Volkswagens roll off the production line at the newly constructed plant in Salzgitter. The upper mid-class four-door saloon is powered by a new 1.6 litre four-cylinder in-line engine optionally developing 75 or 90 horsepower. The "assembled wealth of good ideas", as the advertising for the K 70 boasts, delivers a top speed of 158 km/h and can be

bought for DM 9,450. The NSU-designed saloon is brought into the portfolio under the Volkswagen trademark and marks the transition to a new Volkswagen generation.

**OCTOBER 20** A press conference is held to publicly present the new Salzgitter plant and the K 70 built there. The new plant, which took just under two years to build, produces engines as well as complete vehicles. By the end of 1970 the engine-building operation, housed in shed 1, is employing more than 2,000 of the total workforce of 5,108 people. The new plant site is linked to the long-term aim of transferring engine construction from Hanover in order to increase manufacturing capacities for the Transporter. From January 1971 Salzgitter produces the engines for the Audi 100, leaving Auto Union free to gain additional capacities in order to exploit market opportunities as they arise. By the end of 1971, the workforce in Salzgitter has grown to 8,000. The selling crisis of the K 70 and the onset of the worldwide recession in 1974/75 brings car manufacturing in Salzgitter to an end in September 1975. This site had additionally taken on the assembly of the VW 411 in 1971 and part of the Passat production in 1973. In total the site outputs more than 400,000 vehicles, including 210,891 of the K 70 model. In 1975, engine production reaches almost 3,800 units per day.



K 70

## SALZGITTER PLANT



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1600	VW 411
1,621,197	2,214,937	1,196,099	288,011	272,031	42,587

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	110,968
Salaried staff	13,824
Workforce of foreign group companies	35,421
Total	124,792
	190,306

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	565,843	725,055
Abroad	1,060,042	1,481,866
Total	1,625,885	2,206,921

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	9,913
Investments	1,131
Profit	190
	407

1970

## 1971

**JANUARY 6** By means of a capital investment, Volkswagenwerk AG acquires a 75 percent share in Volkswagen Bruxelles S.A., which was founded on December 31, 1970. The company handles imports to Belgium and runs the assembly plant built by the authorised importer, which has a capacity of 400 vehicles a day. Volkswagen Bruxelles becomes a wholly-owned subsidiary of Volkswagenwerk AG at the end of 1975. When Audi assumes responsibility for production at the Brussels plant, the name of the company is changed to Audi Brussels S.A/N.V. on May 30, 2007.

**SEPTEMBER 2** At the Hockenheimring circuit, German motoring journalists are invited to a demonstration of VW's computerised diagnostics system, which sets new standards in vehicle servicing. From the end of June, all Volkswagen vehicles are equipped with a diagnostic network accessed via a central port to check their safety and functionality. Starting in August, Volkswagen's service workshops are gradually equipped with computers. IT also provides new impetus to research and development activities, including the use of an automatic scanner in the design of body shells. Mainframe computers and plotters make possible a significant reduction in the time necessary for the development of new bodies. Computer systems are thus fully integrated into all areas of engineering and service.

**SEPTEMBER 24** Siegfried Ehlers is elected Chairman of the Works Council.

**OCTOBER 1** Rudolf Leiding, former President of Volkswagen do Brasil and Chairman of the Board of Management of Audi NSU Auto Union AG, becomes Chairman of the Board of Management of Volkswagenwerk AG.



RUDOLF LEIDING



BEGINNING OF THE COMPUTER AGE

SIEGFRIED EHLERS

VOLKSWAGEN BRUXELLES



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1600	VW 411
1,715,905	2,353,829	1,291,612	277,503	234,224	79,270

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG		Group
Wage-earners	114,866	Germany	550,767	694,341
Salaried staff	15,400	Abroad	1,154,652	1,623,044
Workforce of foreign group companies		Total	1,705,419	2,317,385
Total	130,266			

## VEHICLE SALES

1971

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	11,237
Investments	1,216
Profit	12

## 1972

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**FEBRUARY 17** With 15,007,034 units produced, the Beetle breaks the record of the legendary Tin Lizzy, the Ford Motor Company's Model-T built from 1908 to 1927. The Beetle is the new World Champion.

**MARCH 8** Volkswagenwerk AG signs an investment agreement with the Yugoslavian importer UNIS for the construction of a local production site. In accordance with this agreement, the joint venture Tvornica Automobila Sarajevo (TAS), based in Vogosca, is founded on June 14th, and signs up to the investment agreement on August 8th. TAS, in which Volkswagenwerk AG holds a 49 percent share, initially produces replacement parts and standard production parts for the German car-maker. After a year-long construction period, the new plant starts assembling the VW 1200, 1300 and 1303 models on November 10, 1973. At first, production capacity is about 20 vehicles a day. In 1976, the site switches to production of the Golf. On transfer of the entire Caddy production to Sarajevo, the Yugoslavian company starts producing for export markets in 1982. In the Autumn of 1985, the second-generation Golf goes into production. In 1988, 3,109 employees produce a total of 28,341 vehicles, of which 15,184 are delivered to Volkswagen AG. On September 28, 1989, the 300,000th Volkswagen, an alpine white Golf, rolls off the production line. In 1990, the Yugoslavian company achieves a new production record of 37,411 vehicles. The civil war and collapse of the economy result in production being stopped in 1992.

**JUNE 21** Based on the provisions of the amended Works Constitution Act, a new General Works Council is set up and given expanded rights of co-determination and involvement. Siegfried Ehlers is elected Chairman.

## WORLD CHAMPION BEETLE



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 1600	VW 411
1,483,350	2,192,524	1,220,686	294,932	157,543	70,368

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	101,866
Salaried staff	14,486
Workforce of foreign group companies	43,371
Total	116,352
	192,083

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	484,542	628,139
Abroad	987,019	1,568,839
Total	1,471,561	2,196,978

1972

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	10,399
Investments	785
Profit	86
	15,996
	1,573
	206







## 1973 – 1981

### The Shift to Models with Water-Cooled Engines

The new generation of Volkswagens arrived at the right time. It helped Volkswagenwerk AG out of the grave situation caused by the oil crisis of 1974/75 and the global recession that acutely threatened the company's liquidity. The positive response to the Passat and the sales successes of the Golf, which led the German new car registration statistics from 1975 and instigated the compact car class, eased the overall reduced demand for automobiles on the domestic market. While the sales of other manufacturers declined by as much as 40 percent, Volkswagen was able to stabilise its 1975 figures at the previous year's level. Most of the financial losses resulted from declining exports to Europe and North America. Earnings also declined in South Africa and Mexico, in spite of Volkswagen's position as market leader, as costs exploded due to inflation and the exchange rate shifts could not be offset by price increases. The decline in sales on the export markets led to overcapacity at the domestic plants, with capacity utilisation dropping to 61 percent in 1975. Aligning production to sales necessitated a substantial reduction of the workforce. After some initial conflict, this was achieved in a socially acceptable manner by mutual agreement between the General Works Council and the company management. In 1976, Volkswagenwerk AG increased sales by more than 15 percent; the Volkswagen Group had overcome the crisis.

The launch of four new model series within just a few years was accompanied by far-reaching changes in production. In order to apply the traditionally high level of production mechanisation to the multi-model range, innovative technical and organisational production systems were required. To that end, between 1972 and 1975 the company launched a DM 2.5 billion investment programme which established the production engineering basis for the new product range. In 1973 Volkswagen converted the plants in Wolfsburg and Emden to hanging assembly line systems, thereby improving production flexibility and enhancing assembly conditions. Rationalisation was substantially enhanced by computer systems, for example in the press shop, where production was now controlled and monitored centrally. The company limited the production of air-cooled engines, while increasing capacities for water-cooled engines and introducing corresponding new manual and automatic transmissions into its range. Volkswagenwerk AG gradually established the preconditions to implement its modular component kit system, allowing use of the same parts in different models with largely identical technical specifications. The Passat was closely based on the Audi 80, while the Polo originated from the identical design of the Audi 50. The modular component kit system was an essential element of the new production concept aimed at safeguarding the company's long-term profitability.



HANGING ASSEMBLY LINE FOR THE GOLF  
AT THE WOLFSBURG PLANT

After the first phase of rationalisation was completed, Volkswagen concentrated on increasing its exports, especially to the USA, where the downward trend continued. Between 1973 and 1976, Volkswagen of America's sales dropped from 540,364 to 238,167 vehicles; its market share was cut in half to 2.3 percent. The Volkswagen management had already started thinking about setting up a production facility in America back in 1973, in order to compensate for competitive disadvantages in pricing resulting from unfavourable exchange rates and West Germany's high production costs. The main objection to this project was the tie-in to one model, and the resultant high degree of product dependency in a competitive market, whereas the alternative idea of upgrading production in Mexico to supply the USA raised concerns with regard to product image. But falling sales and financial losses from the export business finally brought acceptance of the idea that the only way to

uphold the company's key export bastion was to produce locally. Moreover, the strong initial success of the Golf also prompted the decision in June 1976 to build the Rabbit, the American version of the Golf, in the USA. The plant in Westmoreland began producing for the North American market in April 1978, after Volkswagen of America had the previous year succeeded in reversing its trend by achieving a 22 percent sales increase. Initially, not even the global recession beginning in 1980 or the massive competition from Japanese manufacturers, who dramatically cut the global market share of US car-makers within the space of a decade, had a negative impact on sales. Following a 13 percent rise in 1979, the US subsidiary reported a further rise in sales from around 337,000 to 368,000 Volkswagen and Audi models the following year. The company was benefitting in this from the dramatic rise in oil prices, which triggered growing demand for vehicles offering better fuel economy.

In order to stabilise its position in South America, Volkswagen took over the faltering Chrysler Corporation's Brazilian subsidiary in 1979, and in 1980 acquired its Argentinian subsidiary too. The restructuring of Chrysler Motors do Brasil Ltda. as a dedicated truck-maker additionally strengthened the international supply network in the commercial vehicles sector. Volkswagen thereby intensified its involvement in the sector that had been instigated in 1977 by its co-operation agreement with Maschinenfabrik Augsburg-Nürnberg AG (M.A.N.). Volkswagen gradually expanded its commercial vehicles product range from 1975 onwards, creating a diversity of models similar to that in its car business. Along with the classic Transporter, the range included the LT, a light truck series developed jointly with M.A.N., as well as the truck built in Brazil starting in March 1981. The start of production of 11- and 13-tonne trucks by Volkswagen Caminhões Ltda. coincided with a dramatic downturn in the South American economy. Annual inflation rates of well over 100 percent as well as restrictive monetary and import policies led to a collapse in passenger car sales in Brazil and Argentina in 1981. Volkswagen do Brasil's unit sales were 35 percent down against the previous year. Sales of Volkswagen Argentina S.A., which at the end of the year switched to assembling the Transporter from Brazilian component kits, fell by a third. At Volkswagen of America, too, 1981 saw a reversal of the sales trend. The following year there was a 40 percent slump in sales, due in part to the global economic crisis and in part to Japanese competition. The second assembly plant in Sterling Heights completed in 1982 did not go into operation and was sold in 1983.



STAFF AT THE CONTROL CONSOLE  
IN SHED 54

Domestic demand was impacted by the second oil crisis, especially in the compact executive (D segment) class. While Audi suffered a drop in sales in 1980, Volkswagen profited from the shift to more economical models. The Golf, Golf Diesel and new Passat were successful in a declining market, enabling the Volkswagen Group to hold on to its market share of just under 30 percent. A greater cause for concern even than the unstable energy situation was the expansionist strategy of Japanese manufacturers, who by now were making more than one in five cars worldwide, and were gaining market shares in both America and Europe. Their success was based on a flexible, horizontal manufacturing system which enabled them to produce low-priced models and adapt quickly to changing customer needs. Up to then Volkswagen had strongly defended its position in the face of far-eastern competition, as its higher retail prices were backed by high standards of engineering and product quality, a superior sales and service network and the high resale

values of its models. However, the shift in the Japanese exporters' focus from the USA to Europe in 1980 resulted in a competitive battle that could not be won on the price front alone. The Volkswagen Group's strategy was to concentrate on maintaining its technical edge and increasing the flexibility of its manufacturing system in order to adapt its production volumes, models and equipment specifications to the increasingly diverse demand.

Between 1979 and 1982, Volkswagenwerk AG invested around DM 10 billion in its German operations, primarily in the ongoing development of energy-saving, eco-friendly models and in rationalising production. The automation phase was marked by the introduction of micro-electronically controlled industrial robots, multi-purpose machinery capable of handling different vehicle types and models, and variable conveying systems. With the help of new control systems in the body shop, paint shop and final assembly, each vehicle could be handled as a custom order, and built according to individual customers' preferences. Computer-controlled material flow and high-shelf storage with driverless transport systems improved the efficiency of materials management. In 1981, the type-specific mechanised operation of the body shop was converted to programmable handling machines. The high-point of these modernisation measures was the first ever fully automated car assembly line, which was commissioned into operation in shed 54 at the Wolfsburg plant.

Thus strengthened to meet the intensified competition, the Volkswagen Group set out on an expansionist course. Because of the limited growth possibilities on the domestic market, long-term survival depended on exploiting opportunities for expansion on international markets. The boom in the car industry over the coming decade provided favourable conditions for that undertaking.

#### FUTURISTIC STUDY AUTO 2000



## 1973

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**JANUARY 1** Expansion of the portfolio and an increase in financing volumes make it necessary to convert financial services company Volkswagen-Finanzierungs-Gesellschaft mbH into a fully-fledged bank. Following approval by Germany's banking regulatory office to launch banking operations, the company is renamed VW Kredit Bank GmbH. Its activities are still limited to motor vehicle loans. From 1978 onwards the company is named V.A.G Kredit Bank GmbH.

**FEBRUARY 7** Volkswagen of Nigeria Ltd. is founded in Lagos, with the participation of the Nigerian government. Volkswagenwerk AG holds 40 percent of the company's shares. Setting up production in West Africa increases Volkswagen's production capacity on the African continent and is aimed at developing an export market for Volkswagen's subsidiaries in Brazil and Mexico. On March 21, 1975, Volkswagen of Nigeria begins assembling the VW 1300. In 1976 it builds over 16,000 vehicles, including the Passat, the Brasilia and the Audi 100, and increases its share of the passenger car market to 23.5 percent. Its position in the commercial vehicle market stabilises at 16.8 percent. In December 1976, the Nigerian Volkswagen subsidiary takes over imports of commercial vehicles in place of the previous general importer. A currency shortage in 1982 leads to state-imposed import controls, effectively throttling production in industries dependent on imports. Only in 1985, after a bilateral trade agreement between Nigeria and Brazil eases material supplies, is Volkswagen of Nigeria again able to produce continuously. Pursuant to this agreement, Volkswagen do Brasil supplies vehicle parts in exchange for oil shipments from Nigeria to Brazil.

**MAY 14** The Passat, the first model of the new Volkswagen generation, goes into production at the Wolfsburg plant. Presented to German and international media between May 21 and June 6 in Zurich, the Saloon and Variant estate version feature front-wheel drive, a water-cooled four-cylinder engine developing 55, 75 or 85 horsepower, an overhead camshaft, and an all-steel body. Technically, it is closely based on the Audi 80, and implements the modular kit system which delivers major potential for rationalisation by using standardised components for different Group models. The Passat becomes the successor to the VW 1600 in the mid-size class. The model, available in two-door and four-door versions, costs DM 8,555 ex-factory.

**JULY 1** Restructuring of the US distribution system based on takeover of the wholesale function is completed for the time being. Following acquisition of the two Californian distributors, the two new subsidiaries are merged into Volkswagen of America, Inc. From now on, regional distribution centres are responsible for the various sales territories. Parts and accessories sales are handled by Volume Export & Trading Corporation. Founded in 1973 in Englewood Cliffs, New Jersey, and owned by Volkswagen's subsidiary Holad Holding & Administration AG based in Basle, Switzerland, the company is renamed VOTEX, Inc in 1976.

## PASSAT



## THE FIRST BEETLE FROM VOLKSWAGEN OF NIGERIA



## VEHICLE PRODUCTION

	Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	VW 411	Passat
	1,524,029	2,335,169	1,206,018	289,022	73,440	114,139

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagenwerk AG	Group
Wage-earners	110,925	
Salaried staff	14,862	
Workforce of foreign group companies		54,093
Total	125,787	215,058

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	422,711	619,074
Abroad	1,025,773	1,661,829
Total	1,448,484	2,280,903

1973

## FINANCIAL DATA (IN MILLION DM)

	Volkswagenwerk AG	Group
Sales revenue	11,563	16,982
Investments	755	1,556
Profit	109	211



## 1974

**FEBRUARY 4** The Scirocco, a two-door sports coupe styled by Giorgio Giugiaro, goes into production at coach-builder Karmann in Osnabrück. Based on the technical concept for the Golf, the Scirocco is characterised by its striking design, innovative technology and high degree of everyday practicality. The Scirocco is available with engines developing 50, 75 and 85 hp. Thanks to its light weight of just 750 or 775 kg, the Scirocco achieves top speeds of 144, 164 and 175 km/h respectively, depending on engine variant. The DIN standard fuel consumption of the 50 hp model is specified as 8.0 litres of regular petrol per 100 km. Prices start at DM 9,480. With sales of 504,153 units in its first generation, the Scirocco opens up a new market segment for Volkswagen.

**MARCH 29** Production of the Golf begins in Wolfsburg. With its straight lines and compact design by Italian Giorgio Giugiaro, allied to water-cooled front-mounted engines developing 50 and 70 hp respectively, the model represents a landmark new concept. The compact car is 3705 mm long, 1610 mm wide and 1410 mm high. Its prices start from DM 7,995. The Golf, named after the German for “gulf” stream as well as the game of golf, offers space for five people and their luggage. It is a lightweight at just 750 kg, and reaches a top speed of 160 km/h. Presented to the media in Munich between May 20 and June 10, 1974, the Golf is acclaimed as a ground-breaker, with features and advanced design which will become the benchmark of an entire vehicle class. Joined in 1976 by the sporty GTI version and the economical Diesel, marking a first move into the small diesel car segment, the hatchback rapidly becomes a bestseller. The one millionth Golf rolls off the assembly line on October 27, 1976. The mass-market success of the Golf also boosts Volkswagen financially.

**JUNE 12** In order to reduce the personnel overhang linked to the dramatic collapse in sales, Volkswagenwerk AG offers wage-earner employees voluntary redundancy based on a company-wide agreement concluded with the General Works Council. The workforce is ultimately reduced in a socially acceptable way on the basis of voluntary redundancy, early retirement and reassignment. In the 1974/1975 period, the company’s workforce is reduced by 32,761.

**JUNE 17** A Group Works Council is constituted at Volkswagenwerk AG. Siegfried Ehlers is elected Chairman.

**JULY 1** At 11.19 a.m., the last of almost twelve million Beetles leaves the assembly line in Wolfsburg.

**NOVEMBER 6** Hans Birnbaum becomes Chairman of the Supervisory Board of Volkswagenwerk AG.



HANS BIRNBAUM

## SCIROCCO



## GOLF



## VEHICLE PRODUCTION

	Volkswagenwerk AG	Group	Type 1 "Beetle"	Transporter	Passat	Golf
	1,239,698	2,067,980	791,053	222,233	340,589	189,890

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagenwerk AG	Group
Wage-earners	96,595	
Salaried staff	14,932	
Workforce of foreign group companies		61,950
Total	111,527	203,730

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	414,176	547,657
Abroad	820,234	1,504,156
Total	1,234,410	2,051,813

## FINANCIAL DATA (IN MILLION DM)

	Volkswagenwerk AG	Group
Sales revenue	11,219	16,966
Investments	1,187	1,883
Loss	-555	-807

1974

## 1975

**FEBRUARY 10** Toni Schmücker becomes Chairman of the Board of Management of Volkswagenwerk AG.

**MARCH 5** Production of the Polo begins in Wolfsburg. Just three and a half metres long, but offering as much as 900 litres of luggage capacity, the low-cost compact is largely identical in design to the Audi 50. It is marketed at a price of DM 7,500. Presented to the media between March 16 and 22, 1975 in Hanover, the Polo establishes itself as the smallest and most economical new-generation Volkswagen, and comes at just the right time in view of the sharp rise in fuel prices.

**APRIL 23** The VW LT is launched on April 30 in Berlin, initially being presented to the German media before being exhibited to the international media from May 20 to 28 in Hanover. The new light truck with a 1.25, 1.5 or 1.75 tonne load capacity is powered by a front-mounted water-cooled petrol engine developing 75 hp, or a 65 hp diesel. It comes in box van, high-roof, flat-bed and low-loader flat-bed variants, in two wheelbases, and at prices starting from DM 14,065. The LT box van offers a load space of six square metres, with almost eight cubic metres volume. Its simple yet modern styling is aligned entirely to practical needs. A wide range of body variants extend the LT range.



VW LT



TONI SCHMÜCKER



POLO

## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,121,937	1,948,939	221,351	258,953	419,620	74,180

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	79,143
Salaried staff	13,883
Workforce of foreign group companies	59,157
Total	93,026
	176,824

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany	454,745	625,555
Abroad	592,773	1,412,302
Total	1,047,518	2,037,857

1975

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	11,370
Investments	374
Loss	-145
	18,857
	941
	-157

## 1976

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**MARCH 31** Volkswagenwerk AG sells Motor Producers Ltd. to the Nissan Motor Company Ltd., which has owned shares in the Australian Volkswagen subsidiary since 1973. The company continues contract assembly of Volkswagens until the end of 1976. Thereafter, an independent authorised agent imports only complete Volkswagen and Audi models into Australia.

**JUNE 21** The new four-cylinder 1.5 litre diesel engine developing 50 hp rolls off the production line at the Salzgitter plant. The new power unit, developed by a research project over a number of years, and installed initially in the Golf Diesel, achieves fuel consumption of just six litres per 100 km, setting new standards of economy and establishing Volkswagen as a leader in low-consumption diesel technology. The company's engineers and technicians now turn to the task of combining the economy of diesel with the performance of the petrol engine. The first result of their efforts – a five-cylinder turbocharged diesel engine – goes into production on December 1, 1981. The following year, the Salzgitter engine plant starts production of the 70 hp four-cylinder 1.6 litre turbo diesel engine. Presented to the international motoring media in March 1982 in the Golf GTD, it underlines Volkswagen's innovative strength in engine technology.

**JULY 6** In response to pressure from the downward Dollar exchange rate impacting on Volkswagen exports to the USA, Volkswagen Manufacturing Corporation of America is established to build up production in the USA. The new subsidiary acquires a press plant in South Charleston, West Virginia, and an assembly plant in Westmoreland, Pennsylvania, where production of the Golf for the North American market begins in April 1978. Engines and gearboxes come from Germany, rear axles and radiators from Volkswagen de Mexico, and the remaining parts chiefly from US component suppliers. The new production company is merged into Volkswagen of America, Inc. on July 31, 1978. Corporate headquarters move from Englewood Cliffs, New Jersey to Warren, Michigan. Following the introduction of two-shift production in 1979, the Westmoreland plant, with its workforce of 9,102, reaches the production target of 1,000 vehicles per day.

ENGINE LINE IN SALZGITTER



WESTMORELAND PLANT



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,316,039	2,165,627	234,912	288,018	527,084	144,677

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	83,611
Salaried staff	13,811
Workforce of foreign group companies	59,006
Total	97,422
	183,238

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany		726,457
Abroad		1,415,630
Total	1,561,506	2,142,087

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	16,914
Investments	332
Profit	784
	21,423
	1,141
	1,004

1976

# 1977

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**JANUARY 7** The Derby notchback saloon goes into production at the Wolfsburg plant. Technically based on the Polo, the two-door compact has a 515 litre boot and offers space for five people. The transverse-mounted front engine developing 40 hp offers economical DIN standard consumption of just 7.3 litres per 100 km of regular petrol. The 60 hp engine powers the car to a top speed of 150 km/h. At a base price of DM 9,055, the Derby offers “a lot of car for not a lot of money”. A total of 95,049 Derbys are delivered to customers by the year-end.

**APRIL 15** Volkswagenwerk AG establishes Volkswagen International Finance N.V., based in Amsterdam. The 100 percent Volkswagen subsidiary owns Volkswagen Overseas Finance N.V. in Willemstad, and finances the Group’s activities on international markets, including shareholdings in foreign companies.

**JUNE 29** The freight facility on the Delaware River in Wilmington, Delaware, is opened. It includes a floating pier, transshipping facilities and warehousing, as well as a loading platform with three rail tracks. Its central location on the east coast, close to the key regional markets, makes Wilmington the main port for imports into the USA.

**JULY 5** Pursuant to Germany’s Co-Determination Act of July 1, 1976, the annual shareholders’ meeting elects a new Supervisory Board, comprising ten employee representatives and ten employer representatives respectively.

**AUGUST 25** Volkswagenwerk AG strengthens its involvement in the commercial vehicles business. The co-operation contract signed with Maschinenfabrik Augsburg-Nürnberg AG (M.A.N.) provides for the joint development and manufacture of light trucks. To consolidate future sales in Europe, the holding company “GmbH für ausländische Vertriebsbeteiligungen M.A.N. Volkswagen” is founded in Munich on December 20, 1978. It represents the interests of both manufacturers in dealings with European importers.

**NOVEMBER 18** Volkswagenwerk AG signs a contract with the German Democratic Republic’s state-owned vehicle import-export corporation to supply 10,000 Golfs. Delivered to the GDR by rail through to the end of July 1979, the vehicles are paid for on a barter basis, including large presses, oil, spotlights, and the technical outfitting of the Wolfsburg Planetarium.



## DERBY

## DERBY PRODUCTION IN WOLFSBURG



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,371,453	2,218,880	211,024	274,992	553,989	112,774

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	88,874
Salaried staff	14,427
Workforce of foreign group companies	58,638
Total	103,301

## VEHICLE SALES

Volkswagenwerk AG	Group
Germany	810,536
Abroad	1,429,095
Total	2,239,631

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	19,837
Investments	832
Profit	332

1977

## 1978

**JANUARY 19** The last of 16,255,500 VW 1200L series cars to be built in Germany rolls off the production line at the Emden plant. The Dakota-beige Beetle marks the end of an era.

**MAY 1** The newly founded V.A.G Transportgesellschaft mbH takes over the operations previously handled by Wolfsburger Transportgesellschaft. Bundling the procurement and sale of national and international transport services and of consulting services to third parties in a new company becomes necessary in particular as a result of changes to tax law and the increased transport volumes linked to the establishment of new manufacturing plants abroad.

**JULY 1** With the introduction of the name “V.A.G”, the Volkswagen and Audi sales organisation acquires a cross-brand identity. The cryptic abbreviation, with its associations to both Volkswagen and Audi, has the character of a trademark. Under the umbrella of V.A.G, the sales system is standardised and modernised to meet more demanding customer expectations and combat tougher competition. As before, the sales organisation is based on the franchise system, meaning that retailers trade as independent businesses in accordance with the Volkswagen Group’s uniform standards. At the end of 1978, the worldwide V.A.G sales organisation has over 211,000 employees at 10,600 distributor firms.



LOGO OF THE JOINT SALES ORGANISATION



VAG SIGNAGE

FINAL GOODBYES AT  
THE EMDEN PLANT



#### VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,439,048	2,384,563	207,625	340,884	714,947	112,456

#### PRODUCTION OF SELECTED MODELS

#### WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	93,179
Salaried staff	15,197
Workforce of foreign group companies	68,256
Total	108,376
	206,948

#### VEHICLE SALES

Volkswagenwerk AG	Group
Germany	894,988
Abroad	1,498,182
Total	2,393,170
	1,752,272

#### FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	22,383
Investments	1,046
Profit	368
	26,724
	1,990
	574

1978

## 1979

**FEBRUARY 14** Coachbuilder Karmann in Osnabrück starts production of the Golf Convertible. Its sturdy roll bar and well-insulated water-tight top set new standards of safety and comfort. Customers have a choice of two engines: a 1.5 litre 70 hp engine, or a 1.6 litre GTI unit developing 110 hp. The open-top Golf goes on to become Europe's best-selling convertible.

**MARCH 1** The Volkswagen Iltis premieres at the Geneva Motor Show. The civilian version of the all-terrain vehicle first developed for the German Army in January 1976 is acclaimed as "an ideal tool for agricultural and forestry workers, for hunters, or for off-road fun-seekers". The first of the Volkswagen Iltis units are delivered to the German Army on November 30, 1978. Among its key attributes are its speed on surfaced roads, its robust engineering, its 22.5 cm ground clearance and 60 cm wading depth, as well as its ability to handle inclines up to 77 % while carrying its full load capacity of 700 kg. The four-wheel drive off-roader is sold at a list price of DM 33,600. It is built by Audi in Ingolstadt.

**MARCH 1** Volkswagenwerk AG acquires two thirds of the capital of Chrysler Motors do Brasil Ltda. in São Bernardo do Campo, in order to extend its operations on the Brazilian commercial vehicles market. After it acquires the remaining shares, on February 20, 1981 the subsidiary is renamed Volkswagen Caminhões Ltda. Having been restructured as a dedicated commercial vehicles manufacturer, the company drives ahead with the development of its own truck line. The results of those efforts are the 11-tonne and 13-tonne trucks launched in Brazil in March 1981. On July 25, 1984,

Volkswagen Caminhões Ltda. is merged into Volkswagen do Brasil S.A. in order to optimise cost structures and use of capacity.

**MARCH 8** By acquiring a majority interest in Triumph Werke Nürnberg AG, Volkswagen enters the office machinery and information technology sector. In 1980 the new subsidiary is renamed "Triumph-Adler Aktiengesellschaft für Büro- und Informationstechnik" and Volkswagen increases its holding to 98.4 percent. The diversification turns into a drain on resources. Despite major investment in developing new product lines and expanding the sales organisations in Germany and the USA, performance is unsatisfactory, especially in the computer segment. After sustained heavy losses, Volkswagen refocuses on its core business. The company, now named TA Triumph-Adler AG, along with Triumph-Adler North America (TANA), is sold to Amsterdam-based Olivetti Holding B.V. on September 1, 1986.

**MAY 8** The third generation of the Transporter is presented to the media in Wolfsburg through to May 11. Like its two predecessors, the new Volkswagen Transporter features an air-cooled rear-mounted boxer engine. Built at the Hanover plant in a wide range of body variants, the one-tonne capacity vehicle is attractively styled in line with the LT series, offering good aerodynamics and plenty of space for people and cargo, as well as a package of state-of-the-art active and passive safety features. Initially powered by a 50 or 70 hp flat engine, its prices start from DM 14,435.

ILTIS



GOLF CONVERTIBLE



SÃO BERNARDO  
DO CAMPO PLANT





**SEPTEMBER 3** The Wolfsburg plant starts production of the Jetta, a mid-size notchback filling the gap in the range between the Passat fastback saloon and the compact Golf. Technically based on the Golf and initially available with engines developing 60, 70 or 110 hp, a key feature of the Jetta is its 630 litre luggage space. The 110 hp 1.6 litre engine, powering the car to a top speed of 178 km/h, offers a sporty option. With prices starting from DM 11,395, a total of 144,758 Jettas have already been sold in 1980.

**SEPTEMBER 12** The new range of 6- to 9-tonne trucks is launched at the IAA Frankfurt International Motor Show. The concept has been brought to market in just two years as a joint project between M.A.N. and Volkswagen. It is built on a modular basis, with M.A.N. supplying the diesel engines, for example, and most of the final assembly being carried out at Volkswagen's Hanover plant. Two economical diesel engines developing 90 and 136 hp respectively are available for the vehicle.

**NOVEMBER 16** Karl Gustaf Ratjen becomes Chairman of the Supervisory Board of Volkswagenwerk AG.

KARL GUSTAF RATJEN



TRUCK FINAL ASSEMBLY  
AT THE HANOVER PLANT

## JETTA



## TRANSPORTER



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,396,916	2,541,761	186,870	291,575	833,625	132,947

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	99,227
Salaried staff	16,189
Workforce of foreign group companies	83,149
Total	115,416
	239,714

## VEHICLE SALES

Volkswagenwerk AG	Group
Germany	900,270
Abroad	1,638,299
Total	1,725,060
	2,538,569

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	24,257
Investments	1,709
Profit	438
	30,707
	3,100
	667

1979



## 1980

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**APRIL 1** In order to strengthen its position on the unstable South American car and truck market, Volkswagenwerk AG acquires a majority share in Chrysler Fevre Argentina S.A.I.C., which on November 21, 1980 is renamed Volkswagen Argentina S.A. In 1987 production is moved from the San Justo plant to the facilities in Pacheco and Monte Chingolo.

**MAY 8** At the Energy Symposium in Wolfsburg, host Volkswagen presents Formula E, an energy-saving reconfiguration of gear ranges now available in practically every model. Top speed can be reached in third gear, while the significantly reduced revs in fourth gear improve fuel economy. This innovation is Volkswagen's response to the rise in energy prices following the second oil crisis, which provoked a change in attitude on the part of many motorists. Economical cars are now in greater demand, while the market for compact executive (D segment) models is declining worldwide.

**OCTOBER 27** The media presentation of the second-generation Passat is launched in Ascona in the Ticino (Tessin) area of northern Italy. The fastback model and its Variant estate version have been enhanced in their styling and made bigger inside than their predecessors. Both are initially offered with four engines, from the small 1.3 litre four-cylinder unit developing 55 hp up to the 2.2 litre 115 hp five-cylinder unit. With the 4+E manual gearbox, the Passat Diesel achieves DIN standard fuel economy of 7.2 litres of diesel per 100 km in the urban cycle. At a constant 90 km/h its consumption drops to 4.7 litres per 100 km. Prices for the Passat start at DM 14,295.

**DECEMBER 19** Volkswagenwerk AG establishes a new heat and power generating subsidiary, VW Kraftwerk GmbH, in Wolfsburg. The aim of building a new coal-fired combined heat and power (CHP) plant is to adapt the company's energy services to third parties to the growing demand for heat and power. The West power plant is completed on February 25, 1985, joining the South plant, built in 1938, and the North plant built in 1962, which are likewise combined heat and power facilities. The plants provide power to the Wolfsburg factory installation as well as supplying deionised water to the paint shop. They also supply heat and power to the municipal and national grids.

## PASSAT



## CHP PLANT WEST



## VEHICLE PRODUCTION

	Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
	1,346,755	2,573,871	217,876	265,627	831,527	126,860

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagenwerk AG	Group
Wage-earners	98,622	
Salaried staff	20,144	
Workforce of foreign group companies		99,060
Total	118,766	257,930

## VEHICLE SALES

	Volkswagenwerk AG	Group
Germany		787,591
Abroad		1,707,156
Total	1,632,456	2,494,747

## FINANCIAL DATA (IN MILLION DM)

	Volkswagenwerk AG	Group
Sales revenue	25,180	33,288
Investments	2,251	4,279
Profit	311	321

1980

# 1981

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**MARCH 5** At the 51st Geneva Motor Show running through to March 15, Volkswagen exhibits the second generation of its elegant sports coupe, the Scirocco. Now somewhat more curvy in design, the Scirocco is fitted as standard with a 60 hp engine, and offers 70, 85 and 110 hp options. Prices are between DM 16,600 and DM 22,545 ex-factory. The model is still built at Karmann in Osnabrück.

**JULY 1** V.A.G España, S.A., founded in Madrid, takes over the responsibilities of the former Volkswagen general importer, which had also represented Daimler-Benz. V.A.G España successfully builds an independent sales organisation for Volkswagen and Audi, and increases its sales to 2,379 vehicles in 1982. Pursuant to the co-operation agreement between Volkswagen and Seat, Volkswagen's dealership organisation is integrated into that of the Spanish car-maker, which from January 1983 onwards is able to sell Volkswagen and Audi models through a much more extensive dealer network. At the same time V.A.G España, S.A. ceases trading.

**SEPTEMBER 14** Volkswagenwerk AG and Nissan Motor Co., Ltd. conclude a basic agreement to build the Santana in Japan. Nissan is to provide the production facilities, at Zama near Tokyo, and market the model through its dealer organisation, while Volkswagen is to supply the engines, gearboxes and chassis units. The Santana is launched onto the Japanese market in February 1984.

**SEPTEMBER 17** Volkswagen's new top-of-the-range model, the Santana fastback saloon, is premiered at the IAA Frankfurt International Motor Show. Bigger and more elegant than any of the previous models, the Santana adds a "large classic tourer" to the Volkswagen model range. Built in Wolfsburg, with engineering largely identical to the Passat, the four-door saloon starting at a price of DM 17,995 is intended to close a gap in the range. Despite its attractive features including a generous 535 litres of boot capacity, the Santana does not sell as well as expected in Europe. From 1983 onwards the Santana is also built in China, where it becomes a million-seller.

**SEPTEMBER 17** At the IAA Frankfurt International Motor Show, Volkswagenwerk AG presents the "Auto 2000" project sponsored by Germany's Federal Ministry of Research and Technology. The three-cylinder turbocharged direct-injection diesel engine developing 45 hp consumes just 4.1 litres per 100 kilometres at a speed of 120 kilometres per hour. This study is Volkswagen's contribution to the ecological debate aimed at framing policies to save energy and reduce pollution.



DERBY



POLO



SANTANA

**SEPTEMBER 30** On the island of Sardinia through to October 8, journalists from Germany and all over Europe have the opportunity to test drive the new Polo. The second generation of Volkswagen's two-door compact – acclaimed as “a practical, economical small car” – differs from the predecessor model in being a hatchback. With its 40, 50 and 60 hp engines, it combines enhanced responsiveness with better fuel economy. Its DIN standard consumption of just 5.8 to 7.9 litres of regular petrol per 100 km and its starting price of DM 11,185 are appealing arguments for cost-conscious buyers.

**DECEMBER 15** Production of the second-generation Derby at the Wolfsburg plant surpasses the target of 100 units a day. Technically identical to the Polo, but very distinct in its styling, the notchback saloon with a 540 litre boot capacity is sold at prices starting from DM 11,595. From January 1985 it is marketed as the Polo notchback.



SCIROCCO

## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,232,818	2,245,611	187,327	261,835	799,287	102,985

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	99,832
Salaried staff	20,239
Workforce of foreign group companies	86,620
Total	120,071
	246,906

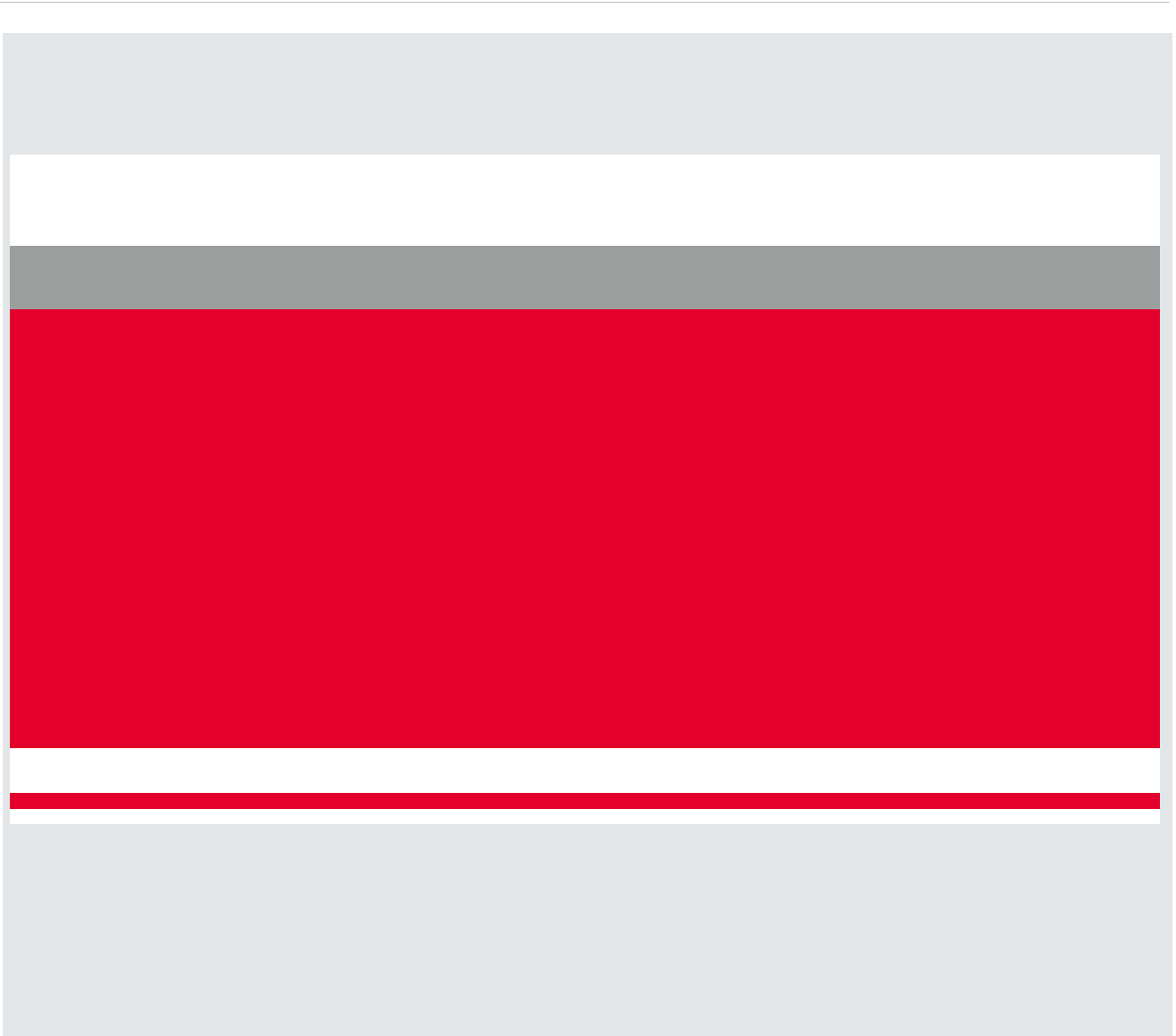
## VEHICLE SALES

Volkswagenwerk AG	Group
Germany	737,828
Abroad	1,541,212
Total	2,279,040

1981

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	26,402
Investments	2,182
Profit	120
	37,878
	4,851
	136





1982-1991



## 1982 – 1991

### New Brands, New Markets

As the world automotive industry underwent structural change, the Volkswagen Group evolved into a multi-brand alliance with a global production network. Based primarily on a high-volume policy, Volkswagen vigorously exploited opportunities for expansion on European and Asian markets to counter the negative trends in the automotive industry during the 1980s. Increased pressure from the competition in Europe and North America, higher energy prices, instability on international currency markets as well as environmental concerns demanded new product design and manufacturing concepts. Volkswagen met those challenges by an innovative and expansive approach based on advancements in automotive engineering and flexible production. The strategy also entailed utilising opportunities for international co-operation and cutting costs through by strengthening the Group's global production network.

Volkswagen engaged in ground-breaking co-operative ventures in the Asian-Pacific region, which was becoming an increasing focus as a high-volume export market thanks to its dynamic economic growth and low production cost base. The licensing agreement by which Nissan began assembling and marketing the Santana through its dealership organi-

sation in early 1984 strengthened Volkswagen's presence on the Japanese market. The Volkswagen Group also intensified its analysis of the flexible and productive systems set up by Japanese manufacturers. Although the Volkswagen Group rose to become the leading foreign car importer in Japan, the country's protectionist policies blocked any major expansion of the export business. It was only the opening of the Japanese market in the late 1980s that created the preconditions for a volume-based export strategy. Volkswagen Audi Nippon K.K., which emerged in mid-1989 out of the consulting firm Volkswagen Asia Ltd., subsequently began establishing an independent sales organisation.

At the core of the company's Asian involvement was the People's Republic of China. Its reform policies and industrial development opened the way to a market of great future potential. Conversely, the Chinese leadership trusted in Volkswagen because of its pioneering development of the automotive industry in Brazil and Mexico. In 1978, the two parties began negotiations on the construction of a car plant. However, the proposed large-scale project was abandoned because it did not fit with the conditions prevailing



QUALITY INSPECTORS  
AT SHANGHAI VOLKSWAGEN

in Chinese industry and was beyond the limited financial possibilities of the Volkswagen Group. The idea was dropped in favour of gradual expansion of production. The assembly contract signed in 1982 with the Shanghai Tractor & Automobile Corporation was the precursor to a successful German-Chinese undertaking which began on April 11, 1983 when the first Santana built in China rolled off the production line and was further enhanced in 1985 with the founding of the joint venture Volkswagen Shanghai Automotive Company, Ltd. As capacity increased, the joint venture became China's largest passenger car producer and made Volkswagen the market leader in the People's Republic. The establishment of a second joint venture in February 1991 assured that position for the long term. Like the Volkswagen plant in Shanghai, FAW-Volkswagen Automotive Company, Ltd. in Changchun manufactured for the Chinese market as well as for other members of the Volkswagen Group.

In parallel with its entry onto the Chinese market, the Volkswagen Group was building a leading position in Europe, which in 1982 saw an upturn in the export business. Despite the general weakness in the automotive industry, the Group's total sales of almost 619,000 vehicles were up against the previous year. Key markets were France, Italy and the UK, where more than 100,000 vehicles respectively were sold. In Spain, however, where the country's impending membership of the European Community meant that substantial growth in car imports was to be expected, Volkswagen was barely represented. After import limitations on passenger cars were lifted, Volkswagen had formed its own sales company in May 1981 as a first step in gaining access to the Iberian market. A further step entailed the signing of a co-operation agreement with state-owned car-maker Seat. Volkswagen quickly filled the gap left by Fiat's withdrawal from involvement in the Spanish company. With the licence agreement for production of the Polo, Passat and Santana, the Volkswagen Board intended to make Volkswagen the number one in Europe. Only after Polo production was transferred to Spain could capacity in Wolfsburg be made available for the expansion of Golf production. The co-operation with Seat was bearing its first fruits by 1984, with sales of Volkswagen and Audi models in Spain climbing from 2,379 in 1982 to 28,667 units. The company was also able to strengthen its market positions in Switzerland, the Netherlands, Belgium and Scandinavia. With sales of almost 760,000 vehicles, representing an increase of 24 percent, the Volkswagen Group reached the number one position in Europe for the first time in 1985.

This provided the impetus for a takeover of Seat in June 1986. Just like Auto Union over 20 years earlier, Seat joined the Volkswagen Group as an independent brand. Seat's separation from Fiat had left its mark, however, as it forced the Spanish company to undertake the difficult task of developing its own range of competitive products. Substantial investments in production rationalisation and vehicle development were necessary before the Spanish Volkswagen subsidiary returned a profit in 1988.

While Volkswagen AG was conquering new markets in Europe and Asia during the 1980s, business in America was in crisis. Stronger competition from Japanese manufacturers, who had increased their exports to the USA as well as expanding their production capacities there, caused Volkswagen of America's sales to stagnate in 1986. As the year before, the Jetta remained the company's best-selling model, but production of the Golf in the United States had to be cut by 13 percent because it again did not meet sales expectations. Sustained heavy financial losses and surplus capacity forced the Volkswagen Group's management to close the Westmoreland plant in November 1987. The plant in Puebla, Mexico took over production of the Golf and the Jetta for the North American market.

South America's unstable economic development and high inflation resulted in a steady loss of earnings for Volkswagen's Brazilian and Argentinian subsidiaries. The introduction of price controls by the Brazilian government in October 1986 undermined the profitability of Volkswagen do Brasil. In order to safeguard its involvement

in South America with limited financial investment and to reduce overall financial risk, Volkswagen AG sought a co-operation agreement with Ford. The two manufacturers combined their operations in Brazil and Argentina under a joint holding company, Autolatina, founded on May 27, 1987. Volkswagen took responsibility for technical matters and Ford handled the financial management of the joint venture. The planned merger of Volkswagen do Brasil and Ford Brasil fell through because of Brazil's dealership law, so the two companies remained as legally independent entities. Their cost structures improved thanks to synergy effects and the creation of joint production lines. By contrast, Autolatina Argentina's situation remained critical, so that a merger of the sales networks was considered in 1990. An industrial relations pact between the Ministry of Trade and Industry, trade unions and the automotive industry in Argentina in 1991, and subsequently in late March 1992 in Brazil, provided the car business with a sustained boost. The co-operation between Volkswagen and Ford resulted in a second joint venture in Portugal in 1991. Aimed at sharing capital commitment and risk, the enterprise was set up to produce a multi-purpose vehicle (MPV) for the European market.

The collapse of the socialist planned economies in Eastern Europe took Volkswagen's expansion in an unexpected direction. Immediately after the Wall came down in November 1989, the Wolfsburg company intensified its negotiations with the automotive industry in Saxony, with which it had in fact been doing business for a number of years. In December 1989, Volkswagen formed a planning company



THE FIRST POLO FROM ZWICKAU

together with the former state-owned passenger car combine “IFA-Kombinat Personenkraftwagen” in Chemnitz to prepare the development and production of vehicle models which could be competitive on international markets. In anticipation of a boom in demand for western cars in the East, Volkswagen invested in expanding production at the Mosel, Chemnitz and Eisenach plants. A state-of-the-art assembly plant was built in Mosel with capacity for 250,000 vehicles a year. The factory in Chemnitz supplied engines, while cylinder heads were manufactured in Eisenach. After their capacities had been expanded, both plants also produced for other members of the Volkswagen Group.

The upheaval after 1989 gave Volkswagen AG the unique opportunity to gain a foothold on Eastern European car markets. Volkswagen’s management identified an acquisition target in Czech car-maker Škoda, with its valuable brand name, long-standing tradition and highly qualified workforce. In anticipation of an upturn in the car industry, Volkswagen promised a substantial expansion of production

and extensive social benefits, and in particular undertook not to make any redundancies for a limited period. Škoda became the fourth independent brand within the Volkswagen Group in 1991. However, the collapse of the domestic market and markets across Eastern Europe thwarted the all too optimistic forecasts.

The Volkswagen Group developed rapidly into a global production network with plants on five continents. By establishing a strong pillar of its business in Asia as well as in Eastern Europe, Volkswagen was able not only to enter growth markets but also to establish plants that could be run at lower cost. The Volkswagen Group’s growth and multi-market strategy made it the number one in the European car industry, allowing it to expand its product range so as to develop models for all tastes and needs. The increasing cost of this expansion undermined Volkswagen’s financial position as the economic crisis of 1992 took hold.

## 1982

**JANUARY 1** Carl H. Hahn becomes Chairman of the Board of Management of Volkswagenwerk AG.

**JANUARY 1** Volkswagen of Nigeria Ltd. enters a period of long-term crisis caused by the ongoing recession, limited price competitiveness and lack of support from the Nigerian government, which reacts to currency shortages by introducing import controls and cutting the production of industries reliant on imports. As a result, production is shut down several times during the 1980s due to a shortage of materials. In March 1990, as prospects for the fulfilment of market potential recede, Volkswagen decides on an orderly withdrawal from Nigeria. Volkswagen of Nigeria is operating at only 5 percent of capacity, while high levels of liabilities far outweigh the minimal revenues. Negotiations begun in 1992 on its sale to a Nigerian company are discontinued because of internal power struggles. The last German employees leave in 1994. Production has been shut down ever since. In April 2006, Volkswagen AG sells its remaining shares in Barbedos Ventures Ltd., registered in Tortola in the British Virgin Islands.

**JUNE 8** A trial assembly contract with Shanghai Tractor & Automobile Corporation marks the beginning of the Volkswagen Group's involvement in the People's Republic of China. The object of this co-operation agreement is to establish a joint venture for production of the Santana. The first Chinese-built Santana rolls off the production line at the Anting plant on April 11, 1983.



CARL H. HAHN

**SEPTEMBER 30** The co-operation with “Sociedad Española de Automóviles de Turismo, SA” (Seat) opens the way for the Volkswagen Group to enter the Iberian market. The Spanish car-maker is to handle sales of imported Volkswagen and Audi models through its own dealer network. In Spring 1984, it starts building the Passat and Polo under licence. Ultimately, transferring production of the Polo to Spain frees up capacity in Wolfsburg to expand Golf production, so helping Volkswagen to reach the top of the European car industry.

**NOVEMBER 2** Driving demonstrations of the Volkswagen Caddy begin in the Eifel region of western Germany. Based on the Golf, the model is launched on core European markets in December 1982 in pick-up, pick-up with tarpaulin and hoops, and hard-top van variants. The vehicle built by the joint venture TAS in Sarajevo has been on sale in the USA since 1979. Designed to carry up to half a tonne, the Caddy is powered by a 70 hp petrol engine or a 54 hp diesel unit. Prices start from DM 14,330 ex-factory.



START OF SANTANA PRODUCTION IN SHANGHAI



CADDY

## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,196,868	2,130,075	188,681	219,795	656,359	142,356

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	98,046	Germany	672,058
Salaried staff	20,837	Abroad	1,447,860
Workforce of foreign group companies	81,103	Total	1,529,398
Total	118,883		2,119,918

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	27,028
Investments	1,962
Profit/Loss	33



## 1983

**MAY 18** With the start of production of the second-generation Golf in the specially built final assembly shed 54, the Volkswagen Group enters a new era of production engineering. For the first time, robots are involved in building a vehicle designed for largely automated assembly. The new manufacturing concept raises the level of automation and makes ergonomic workstation design essential. Shed 54 is officially opened on February 22, 1984. With its softer, more elegant form, larger interior and modified chassis, the new-generation Golf is just as big a seller as its predecessor. Reasons for its continued success include the wide range of available engines: four petrol units developing between 40 kW/55 hp and 82 kW/112 hp; a 40 kW/54 hp diesel; and a 51 kW/70 hp turbo-diesel. The Golf GTI achieves a top speed of 191 km/h. The fuel consumption of the Golf GTD according to the DIN standard is 4.3 litres of diesel per 100 kilometres at a constant 90 km/h. Prices start from DM 13,490. The four-wheel drive Golf syncro version is launched in February 1986.

**DECEMBER 20** A new specialist IT company, Volkswagen-Gesellschaft für Datenverarbeitungssysteme mbH, founded with the participation of the city-state of Berlin and Schleicher GmbH & Co. Relais-Werke KG, is entered into the Register of Companies. Volkswagen has a 50 percent interest in the Berlin enterprise, which is intended to bundle the Group's know-how in the field of technical and scientific software. The subsidiary expands its service portfolio and customer base over the subsequent years. Renamed gedas GmbH on January 1, 1998, the company develops and implements system solutions for the entire automotive industry and manufacturing sector. On May 27, 2001 gedas GmbH is converted into a stock corporation (Aktiengesellschaft).



PRODUCTION OF THE SECOND GOLF GENERATION

GOLF



## VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,179,993	2,115,924	155,500	244,173	626,797	146,873

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagenwerk AG	Group	Volkswagenwerk AG	Group
Wage-earners	94,127	Germany	749,863
Salaried staff	20,395	Abroad	1,377,355
Workforce of foreign group companies	75,430	Total	1,538,395
Total	114,522		2,127,218

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	29,187
Investments	2,444
Loss	-85

## 1984

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**JANUARY 27** The second-generation Jetta is launched in Germany at prices starting from DM 14,715. At 4.32 metres in length and with 570 litres of boot capacity, the Jetta is acclaimed by “Stern” magazine as offering the best ride comfort in its class, with its top selling points being its user-friendliness and quiet ride, alongside the generous amount of space in its interior. More elegantly styled than its predecessor, the new Jetta built at the Wolfsburg plant comes in four different equipment lines, with five engine options, including a 70 hp turbo-diesel.

**FEBRUARY 3** The research centre opened at the Wolfsburg plant concentrates over 600 employees under one roof. Except for the wind tunnel and some of the central metrology function, all areas of research are grouped together in the state-of-the-art new 15,000 square metre building.

**OCTOBER 10** In the presence of German Federal Chancellor Helmut Kohl, Volkswagenwerk AG signs an agreement with the Shanghai Tractor and Automobile Corporation (STAC), the Bank of China, the Shanghai Trust and Consultancy Company (BOC) and the China National Automotive Industry Corporation establishing a joint venture to build the Santana in Shanghai. Volkswagen becomes the first joint venture partner in the automotive industry in China, and the move lays the foundation stone for the company’s subsequent success in the People’s Republic.

**NOVEMBER 12** The advertisement placed in regional media bearing the strapline “Wir sind bereit.” (We are ready.) highlights the fact that 11 Volkswagen and Audi models as well as the Transporter have already been fitted with a three-way catalytic converter. As a ground-breaker in this technology, Volkswagenwerk AG began preparing to meet the demand for low-emission vehicles at an early stage, and has cut its pollutant emissions by as much as 60 percent in the last 15 years. The four-cylinder diesel and turbo-diesel manual Golf and Jetta models already comply with stringent US exhaust and particulate emission standards. All passenger cars built in Europe since 1977 can be run on unleaded petrol. In 1984, Volkswagen starts offering special retrofit kits for models already on the market which halve emissions of hydrocarbons and nitrogen oxides. A newly developed micro-catalytic converter also enables small-capacity vehicles to be upgraded. By November 1987 Volkswagenwerk AG has completed the upgrading of its vehicle production to catalytic converter technology. From then on, all petrol engined Volkswagen passenger cars are fitted with catalytic converters as standard.

**12. NOVEMBER** Volkswagenwerk AG signs a contract with the industrial plant import corporation of the German Democratic Republic licensing the production of 1.05 and 1.3 litre engines. Volkswagen provides the necessary plant. In return, the GDR is to supply machinery and electrical products. The planned production of engine blocks for the Group network is postponed to the end of 1989 because of planned economy constraints and quality problems.



CONTRACT SIGNING TO ESTABLISH  
SHANGHAI VOLKSWAGEN



JETTA

#### VEHICLE PRODUCTION

Volkswagenwerk AG	Group	Transporter	Passat	Golf	Polo
1,280,836	2,147,706	157,596	184,945	685,303	146,249

#### PRODUCTION OF SELECTED MODELS

#### WORKFORCE

Volkswagenwerk AG	Group
Wage-earners	95,825
Salaried staff	20,049
Workforce of foreign group companies	77,703
Total	115,874
	238,353

#### VEHICLE SALES

	Volkswagenwerk AG	Group
Germany		708,446
Abroad		1,436,688
Total	1,638,000	2,145,134

#### FINANCIAL DATA (IN MILLION DM)

Volkswagenwerk AG	Group
Sales revenue	33,774
Investments	1,809
Profit	183
	45,671
	4,803
	228

## 1985

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**FEBRUARY 16** The agreement signed in Beijing on October 10, 1984 results in the establishment of Shanghai-Volkswagen Automotive Company, Ltd. Volkswagenwerk AG has a 50 percent share in the Chinese-German joint venture, which builds 1,700 vehicles by the end of the year. The training centre opened at the end of August 1988 supplies qualified staff. The new paint shop opens in October 1989. The following year, the press shop starts operations and engine production begins. In 1991, almost 37,600 engine blocks are supplied to the Group production network. As it expands capacity, Shanghai Volkswagen becomes China's largest and most modern car plant. Between 1986 and 1991, annual production quadruples from 8,471 to 35,000 vehicles, and the workforce increases from 1,911 to 3,064. Local production rises to 70.4 percent, with the result that from June 1991 Shanghai Volkswagen no longer has to apply for licences to import vehicle kits.

**JULY 4** The annual shareholders' meeting votes to change the name of the company from Volkswagenwerk AG to Volkswagen AG.



VOLKSWAGEN LOGO AND VOLKSWAGEN AG  
COMPOSITE MARK

## SANTANA PRODUCTION IN SHANGHAI



## VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,457,272	2,398,196	155,423	225,947	790,342	166,259

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagen AG	Group		Volkswagen AG	Group
Wage-earners	102,653		Germany		721,812
Salaried staff	20,945		Abroad		1,676,192
Workforce of foreign group companies		88,703	Total	1,817,208	2,398,004
Total	123,598	259,047			

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	38,921	52,502
Investments	1,791	3,388
Profit	477	596

## 1986

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**APRIL 24** Walter Hiller is elected Chairman of the General Works Council and also assumes the post of Chairman of the Group Works Council on May 6.

**JUNE 18** After a period of successful co-operation, Volkswagen AG initially acquires 51 percent of the shares in Spanish car-maker Seat, S.A., which is integrated into the Volkswagen Group as a third independent brand. Volkswagen thus gains access to a new market, adds to its product range in the smaller car classes, and stabilises its leadership position in Europe. As part of the reorganisation of the Seat Group, the Pamplona site used for Polo production is demerged in December 1993 and transferred to Volkswagen-Audi-España, S.A. under the new name Fábrica Navarra de Automóviles, S.A. From then on, the manufacture of Seat models is concentrated at the Martorell site near Barcelona. Officially opened on February 22, 1993, with a daily capacity of 1,500 vehicles and a production cycle time of less than 20 hours per vehicle, the plant is a leader in the European car-making industry.

**JUNE 30** In view of the expansive development of the leasing business in North America, and in order to improve internal management, the business of Volkswagen Financial Corporation is transferred to VW Credit, Inc., and on December 31 Vorelco, Inc. is merged into Volkswagen of America, Inc.

**DECEMBER 31** To consolidate its selling operations on the US market, Volkswagen of America, Inc. terminates its agreement with Oregon-based Volkswagen and Audi distributor Riviera Motors, Inc. by mutual consent. By taking control of its own distribution, Volkswagen seeks to exert greater influence over marketing and service activities in the region and implement cost-cutting rationalisation measures more effectively.



SIGNING OF THE TAKEOVER CONTRACT  
BETWEEN VOLKSWAGEN AND SEAT

WALTER HILLER



VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,509,439	2,776,554	161,712	264,387	891,466	214,508

PRODUCTION OF SELECTED MODELS

WORKFORCE

	Volkswagen AG	Group
Wage-earners	109,502	
Salaried staff	22,686	
Workforce of foreign group companies		106,334
Total	132,188	281,718

VEHICLE SALES

	Volkswagen AG	Group
Germany		837,926
Abroad		1,919,867
Total	1,926,652	2,757,793

FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	41,134	52,794
Investments	4,469	6,366
Profit	485	580

# 1987

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**MAY 27** Under pressure from big sales drops in South America, Volkswagen AG and the Ford Motor Company combine their operations in the region under the holding company Autolatina Comércio, Negócios e Participações Ltda. in order to strengthen their competitiveness on the crisis-hit Brazilian market. Autolatina co-ordinates the operations of Volkswagen do Brasil S.A. and Ford do Brasil S.A., which remain legally independent entities. The Argentinian subsidiaries of both corporations are merged into Autolatina Argentina S.A. The two partners retain their own brand identities, with their sales and service functions continuing to operate through separate sales and dealership organisations. After the Brazilian market is opened for car imports, Ford and Volkswagen end their co-operation in April 1995. The legal demerger of the respective subsidiaries is completed on December 1 of the same year in Brazil and on January 1, 1996 in Argentina.

**JUNE 23** Volkswagen AG and the Toyota Motor Corporation sign a Memorandum of Understanding to build a one-tonne pick-up based on the Toyota Hilux at the Hanover plant.

**JULY 2** Klaus Liesen becomes Chairman of the Supervisory Board of Volkswagen AG.

KLAUS LIESEN



TARO



## VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,473,780	2,771,379	145,380	211,936	907,753	232,158

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagen AG	Group
Wage-earners	107,791	
Salaried staff	23,385	
Workforce of foreign group companies		88,176
Total	131,176	260,458

## VEHICLE SALES

	Volkswagen AG	Group
Germany		920,901
Abroad		1,852,712
Total	1,978,440	2,773,613

## FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	43,199	54,635
Investments	3,532	4,592
Profit	494	598

# 1988

**MARCH 14** Through to March 25th, the highlight features of the third-generation Passat are demonstrated to German and international media in Nice. With a wheelbase extended to 2.62 metres, the notchback saloon and estate variants offer the most generous interior space in the mid-size class. Its engines, with power outputs between 53 and 100 kW, or 72 and 136 hp, are for the first time transverse-mounted. The flow-optimised body, welded together on a new fully automated line at the Emden plant, enables a drag coefficient (cw) of 0.29. Fuel consumption of the 59 kW/80 hp turbo-diesel engine is between 4.4 and 6.8 litres per 100 kilometres at a constant 90 km/h or in urban driving. Prices start from DM 23,200 for the notchback and DM 23,930 for the estate.

**JULY 14** Following sustained high financial losses, under-use of capacity in the USA forces the closure of the Westmoreland plant, which is sold to the Commonwealth of Pennsylvania in October 1990. The plant in Puebla, Mexico is expanded and modernised to produce the Golf and Jetta for the US market. By the mid-1990s, the site has developed into a low-cost production location for exports to the USA, which has formed a free trade zone together with Canada and Mexico since 1994.

**AUGUST 22** In Nuremberg Volkswagen presents the Corrado, its “first thoroughbred sports car”. Positioned above the Scirocco, its very name – derived from the Spanish “correr” for to run, race or spurt – expresses the dynamism of the strikingly styled sports compact. A mechanically driven G-60 supercharger and Digifant engine management system help the 1.8 litre four-cylinder unit produce 118 kW /160 hp of power. Average fuel consumption is 8.4 litres of premium petrol per 100 kilometres. The two-door model with a top speed of 225 km/h is priced from DM 42,500.

**AUGUST 24** Volkswagen signs an agreement in principle with Chinese car-maker First Automobile Works in Changchun for production under licence of the Audi 100.

**AUGUST 31** At a specially organised ceremony, Volkswagen hands over machinery for the production of four-stroke petrol engines to state-owned car manufacturing combine “VEB IFA-Kombinat Personenkraftwagen” in the city of Karl-Marx-Stadt (now Chemnitz) in the German Democratic Republic.

CORRADO



## PASSAT

## VEHICLE INSPECTION IN CHANGCHUN



## VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,453,286	2,847,616	150,999	280,571	887,679	215,332

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagen AG	Group
Wage-earners	104,202	
Salaried staff	23,336	
Workforce of foreign group companies		85,655
Total	127,538	252,066

## VEHICLE SALES

	Volkswagen AG	Group
Germany		848,311
Abroad		2,006,076
Total	1,948,949	2,854,387

## FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	44,237	59,221
Investments	3,772	4,251
Profit	523	780

## 1989

**JANUARY 10** Production of the identical-design Toyota Hilux and the new Volkswagen Taro starts at the Hanover plant in the presence of Tatsuro Toyoda. The twin models close a gap in the one-tonne pick-up class. Characterised by robust construction, the cab and pick-up flat bed are bolted separately onto a solid ladder frame. The 61 kW diesel engine powers the vehicle to a top speed of 145 km/h. Fuel consumption according to the DIN standard is 7.4 litres of diesel per 100 kilometres at a constant 90 km/h. The list price is DM 21,300.

**14. AUGUST** The consulting company Volkswagen Asia Ltd. founded in Tokyo in 1983 to support sales of the Santana produced under license by Nissan in Japan is renamed Volkswagen Audi Nippon K.K. On appointment of the first direct dealers in November 1990, Volkswagen starts building up its own distribution system in Japan. As the Japanese market opens up, and following its strategy of boosting exports, Volkswagen AG targets high-volume sales. For an interim period, Volkswagen Audi Nippon K.K. handles Volkswagen imports alongside Japanese company Yanese, before taking over the sole importer function on January 1, 1993. The Volkswagen and Audi distribution network comprises 70 dealers at this time. Shortly after, the sales company acquires a majority share in former Renault importer JAX Co. Ltd., in order to strengthen its dealership network in the Greater Tokyo area.

**SEPTEMBER 12** The diesel catalytic converter premieres at the Frankfurt International Motor Show in the featured Volkswagen Golf and Jetta volume models. The turbocharged 1.6 litre diesel engine is fitted with an oxidation-type catalytic converter, and its emissions are well within stringent US exhaust and particulate limits.

**DECEMBER 22** Immediately after the opening of the border between East and West Germany, Volkswagen AG launches a push into the East German market, utilising its long-standing business relationship with the car industry in Saxony. Together with the former state-owned passenger car combine “IFA-Kombinat Personenkraftwagen” in Chemnitz, it forms a planning company, named Volkswagen IFA-PKW GmbH, to prepare the development and production of vehicle models which could be competitive on international markets. The first Polos are assembled in the former Trabant factory on May 21, 1990, and production of the Golf begins in February 1991. To meet the expected increase in demand, Volkswagen invests in the expansion of production facilities in Mosel, Chemnitz and Eisenach.



ADVERTISING FOR DIESEL CATALYTIC  
CONVERTER TECHNOLOGY

PRODUCTION CHANGE-OVER  
FROM TRABANT TO POLO



FOUNDING OF VOLKSWAGEN IFA-PKW GMBH



VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,548,175	2,947,569	147,539	346,442	890,158	228,867

PRODUCTION OF SELECTED MODELS

WORKFORCE

	Volkswagen AG	Group
Wage-earners	104,792	
Salaried staff	23,513	
Workforce of foreign group companies		93,982
Total	128,305	250,616

VEHICLE SALES

	Volkswagen AG	Group
Germany		848,649
Abroad		2,092,301
Total	2,066,189	2,940,950

FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	48,533	65,352
Investments	4,278	5,606
Profit	655	1,038



## 1990

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**JANUARY 1** The Volkswagen Group restructures its transport business by forming V.A.G Transport GmbH & Co. OHG, which consolidates the management of global transport operations previously spread across Volkswagen AG, Audi AG and V.A.G Transport GmbH. Volkswagen AG has an 81 percent share in the company, and Audi AG 19 percent. V.A.G Transport GmbH manages the new enterprise.

**JUNE 14** The renaming of V.A.G Kredit Bank GmbH as V.A.G Bank GmbH signals a move into the direct banking business, which is now established alongside the long-standing dealer and customer financing operations. Starting in November 1990, its Volkswagen/Audi Card System is the first in Germany to offer both market-leading credit cards, EUROCARD and VISA, in a single package. The product portfolio of Volkswagen's financial services subsidiary, renamed Volkswagen Bank GmbH on December 14, 1994, is gradually expanded to include instalment loans to external customers, for example, as well as the Auto-Credit plan launched in 1995. This low monthly payment plan carries the option at the end of the term of returning the vehicle, paying off the final instalment, or extending the agreement. In 1999, Volkswagen Bank extends its financial services portfolio to include mortgages and investment fund trading.

**JUNE 26** Klaus Volkert is elected Chairman of the General and Group Works Councils.

**AUGUST 28** The fourth-generation Transporter is presented to the media in Braunlage, Lower Saxony. The new model features radically changed engineering and design. Its short, flat bonnet houses a transverse-mounted engine driving the front wheels. Its new design means the T 4 can be offered in two wheelbase variants and three weight classes, and can be assembled entirely based on the modular component kit system. Initially, two diesel engines developing 45 and 57 kW respectively and two petrol engines developing 62 and 81 kW are offered for the box van, minibus and pick-up variants. Thanks to an outstanding drag coefficient (cw) of 0.36, the top speeds of the various engines are between 128 and 161 km/h. The DIN standard fuel consumption of the 1.9 litre diesel engine is 7.9 litres per 100 kilometres. Its 80 litre tank provides the Transporter with a long range. Prices start from DM 25,405. At start of production, the Hanover plant commissions into operation a new line which has both health and environmental benefits. The automated installation of axles, engines and gearboxes makes overhead working largely obsolete, and in the new, likewise highly automated, paint shop opened in 1988 chemical solvents are for the most part replaced by water-based products.



MULTIVAN



KLAUS VOLKERT

**AUGUST 31** The Volkswagen Group sets up a European Works Council, made up of employee representatives from Volkswagen AG, Audi AG, Seat, S.A. and Volkswagen Bruxelles S.A. The European Works Council is a first in the automotive industry, and takes up its duties well before the new EU Works Council Directive is passed on September 22, 1994. The contract between the employee representatives and the Group's management is signed on February 7, 1992.

**DECEMBER 12** In order to establish an efficient production location in eastern Germany, Volkswagen IFA-PKW GmbH becomes Volkswagen Sachsen GmbH. The company expands capacity in Mosel and in 1991/92 takes over both the engine plant Motorenwerke Chemnitz GmbH and cylinder head manufacturer Zylinderkopffertigung Eisenach GmbH, the latter subsequently being sold in 1996 following the commissioning of a new four-valve cylinder head production line in Chemnitz. Until the new production facility is completed, Sächsische Automobilbau GmbH (SAB), a company set up by Volkswagen and the Treuhandanstalt privatisation agency on December 19, 1990 is responsible for assembling the Polo and the Golf at the old Mosel plant. In June 1994, SAB is taken over by Volkswagen AG, which had held managerial responsibility for it since its founding. The merger of Volkswagen Sachsen with SAB is completed on August 15, 1998 and the enterprise is renamed Volkswagen Sachsen GmbH. At the end of the year, the company has a workforce of 6,700.

## EUROPEAN GROUP WORKS COUNCIL



## VEHICLE PRODUCTION

	Volkswagen AG	Group	Transporter	Passat	Golf	Polo
	1,598,346	3,057,598	130,370	393,222	896,874	225,806

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagen AG	Group		Volkswagen AG	Group
Wage-earners	105,373		Germany		945,384
Salaried staff	23,307		Abroad		2,084,795
Workforce of foreign group companies		95,934	Total	2,131,787	3,030,179
Total	128,680	268,744			

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	51,493	68,061
Investments	3,702	5,372
Profit	670	1,086

# 1991

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**JANUARY 1** The organisational structure of the Volkswagen Group is adapted to reflect the brand alliance. A new Brand Management Board is now responsible for the operations of the Volkswagen brand. The Group Management Board decides on all cross-brand matters.

**FEBRUARY 6** Volkswagen AG establishes a second pillar of its business in China. The joint venture FAW-Volkswagen Automotive Company, Ltd. is formed in Changchun together with First Automobile Works, a co-operation partner since 1988. Volkswagen AG holds a 40 percent share in the new company. By this joint venture, the Group strengthens its position in China in order to secure long-term market leadership and establishes an additional low-cost manufacturing base in Asia. The Jetta is initially assembled from imported component kits. In 1994 the newly constructed plant begins producing the Jetta with an annual capacity of 150,000 vehicles. Two years later, a gearbox and engine building facility goes into operation, supplying other Group members within China as well as exporting to Germany.

**MARCH 1** In the course of streamlining its overseas operations, the Volkswagen Group bundles its production and sales operations in the USA, Canada and Mexico to form the North American Region (NAR). As in the case of the South America/Africa Region, created in 1993, regional management bears operational responsibility, while the designated board members are in charge of the reorganisation process and regional strategy and co-ordination.

**MARCH 4** Volkswagen consolidates all its financial services under the umbrella of Volkswagen Finanz GmbH. At the core of this reorganisation is the amalgamation of the leasing and banking business, aimed at achieving synergy in field sales operations. The share capital of V.A.G Leasing GmbH and V.A.G Bank is transferred to Volkswagen Finanz GmbH, which takes over all the operations of V.A.G Leasing GmbH as well as the sales and marketing of V.A.G Bank. The Volkswagen Group has become Europe's leading industry provider of financial services, which now account for over 25 percent of the Group's total assets.

**16. APRIL** Czech car-maker Škoda, automobilová a.s., located in Mladá Boleslav, joins the Volkswagen Group as its fourth independent brand, bringing with it a highly skilled workforce and a yearly capacity of 190,000 vehicles. The Czech government had awarded Volkswagen AG the right to take over the long-established business on December 10, 1990, providing it with excellent access to the car markets of Central and Eastern Europe.

**MAY 30** Volkswagen AG puts the finishing touch to its involvement in Czechoslovakia. The agreement concluded with the Slovakian government on March 12th concerning co-operation with the car-maker Bratislavské Automobilové Závody leads to the establishment of Volkswagen Bratislava, spol. s. r. o. Volkswagen takes over a manufacturing complex with a fully developed infrastructure and starts producing Passats there in December 1991. Exclusive production of the Golf syncro is transferred to Volkswagen Bratislava in 1995 following the expansion of the company's production capacity and the construction of a gearbox plant. After the start of production of the Golf 4 in 1997, volumes triple in the following year to 125,281 units. The workforce increases to 5,250.

FIRST STEP IN THE FOUNDING OF VOLKSWAGEN BRATISLAVA



ŠKODA PLANT IN MLADÁ BOLESLAV



**JUNE 24** Volkswagen AG and the Ford Motor Company establish the joint venture AutoEuropa Automóveis Lda. in Palmela, Portugal. Aimed at sharing capital commitment and risk, the enterprise is set up to exploit opportunities in the booming multi-purpose vehicle (MPV) market segment. The product concept, tailored to the European market, is developed under Volkswagen control.

**JULY 12** The first more rounded design third-generation Golf rolls off the production line at “count point 8” of the Wolfsburg plant. The new model is launched simultaneously in six European countries on November 8, 1991. Its more flowing lines, with distinctly flared panel edges along the car’s flanks, make the body styling more dynamic, the silhouette more elegant. The new Golf sets ground-breaking safety standards. With in-door side impact guards, reinforced door sills, an additional safety cross-beam below the dashboard and mash-seam welded longitudinal members, it even conforms to crash test standards that have not yet become law. Volkswagen makes a further contribution to conserving the environment by its commitment to take back any third-generation Golf built in 1992 or later free of charge at the end of its useful life. Golf prices start from DM 19,975. The fuel-injection petrol engines range from the 1.4 litre 44 kW/60 hp to the 2.0 litre 85 kW/115 hp unit. The top-of-the-range model is the Golf VR6, featuring a 2.8 litre six-cylinder engine developing 128 kW/174 hp. Two diesel engines developing 47 kW/64 hp and 55 kW/75 hp respectively are also available, as is a catalytic converter option.

**OCTOBER 7** The Salzgitter plant sees the onset of the TDI era. The first direct-injection turbo-diesel, with a 1.9 litre capacity and developing 66 kW of power, goes into production. The engine is initially offered for the Audi 80.



PALMELA PLANT SHELL CONSTRUCTION



GOLF



## VEHICLE PRODUCTION

	Volkswagen AG	Group	T4	Passat	Golf	Polo
	1,576,086	3,128,338	137,682	427,395	808,100	325,282

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

	Volkswagen AG	Group		Volkswagen AG	Group
Wage-earners	102,202		Germany	901,821	1,245,907
Salaried staff	23,680		Abroad	845,479	1,880,100
Workforce of foreign group companies		94,895	Total	1,747,300	3,126,007
Total	125,882	265,566			

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

	Volkswagen AG	Group
Sales revenue	47,328	76,315
Investments	5,406	9,910
Profit	447	1,114





1992 – 2014

## Globalisation of the Mobility Group

The Volkswagen Group initiated a strategic change of direction during the severe global recession of 1992/93. While the 1980s was a time of internationalisation and volume policy, Volkswagen now concentrated more on product diversity as well as on improving productivity and earning power. The Group's modernisation was linked to a globalisation process aimed at establishing highly efficient production facilities and effectively reshaping the functional division of labour within the global production alliance. The Wolfsburg-based car-maker was responding to structural problems specific to the industry and the company itself which became more pronounced during the recession as sales plummeted. Price competition, particularly from Japan and the emerging Korean automotive industry, increased the pressure on the global player to streamline and cut costs, while market saturation in Western Europe dampened growth expectations as the economic upturn triggered by German reunification petered out.

To manage the crisis, the Volkswagen Group began to reorganise its production system along the lines of lean production characterised by flat hierarchies, team working, less manufacturing depth and logistical networking with suppliers. Proactive support from the Works Councils was vital to the success of this medium-term project. The same was true with regard to the transition to a socially sustainable, market-oriented employment policy, based on rapid adaptation to customers' wishes and fluctuations in demand rather than merely on steady utilisation of capacity. This difficult synthesis was achieved for a time by the four-day week introduced with effect from January 1, 1994. The flexible model based on cutting weekly working time at Volkswagen Aktiengesellschaft from 36 to 28.8 hours a week was an innovative instrument aimed at reducing the excess manpower resources estimated as 30,000 posts. At the same time, Volkswagen moved ahead with the introduction of lean production and globalisation in order to bring about a sustained improvement in cost structures.

The factories built in the early 1990s were models of lean production. The Mosel plant in eastern Germany and the Seat plant at Martorell were organised along the lines of Japanese transplants. Production processes at the existing plants were systematically improved, mainly as new models were launched. The platform strategy made a substantial contribution to establishing efficient plant structures. By interlinking the Group's 16 platforms, and gradually reducing their number, Volkswagen cut back development and manufacturing depth while simultaneously raising product quality and offering customers a more differentiated product range. The platform strategy went hand in hand with a new procurement policy named Global Sourcing. The object of procuring from all over the world was to establish long-term networking between development, production and logistics operations on the one hand and low-cost, high-performing system suppliers on the other for the "just in time" supply of complex components and modules. The Volkswagen Argentina plant opened in 1995, for example, operates on the modular assembly principle, whereby suppliers autonomously install their pre-assembled components on-site. In the 1990s, Volkswagen resorted more extensively to external suppliers for production in Germany too, putting pressure on the Group's in-house suppliers to cut costs and establish systems expertise.



WORKSHOP ON NEW FORMS  
OF WORK ORGANISATION

The introduction of decentralised production management anchored the principle of lean production in work organisation. Volkswagen began pushing ahead with the introduction of team working accompanied by flatter hierarchies in 1992. In 1993, the elimination of entire management levels shifted decision-making competencies to the operating units, so promoting independent responsibility and enhancing employee motivation. In parallel, Volkswagen implemented the continuous improvement process perfected by the Japanese. Employees were encouraged to participate in optimising their own workplace to raise the quality and productivity of all production processes. The transition in 1993 from sequential vehicle development to Simultaneous Engineering, which shortened project lead times and facilitated a faster, more customer-oriented response to market changes, pursued the same goal.

The restructured production system began to achieve measurable success after a few years. Between 1994 and 1996, productivity in the Volkswagen Group rose by almost 30 percent, while production costs fell as a result of shorter production times. By 1997, the core production time for the Polo had gone down from 24 hours to 15, and for the Passat from 31 to 22. The advantages of lean production became clear to all in the fourth generation of the Golf, which went into production at four plants in 1997. It impressed with high quality standards and environmentally friendly technology. Volkswagen Aktiengesellschaft systematically enhanced its in-production and product-integrated environmental protection over the following years based on the advancement of direct fuel injection and light-weight construction techniques and the creation of a product life-cycle management system.

Growth driven by new products, increasing both sales and earnings, lent impetus to the expansion of the multi-brand strategy. In 1998, Volkswagen brought the legendary Bentley, Lamborghini and Bugatti brands into the Group with a view to expanding the product offering in the luxury segment. The Volkswagen brand added its own luxury saloon, the Phaeton, to that segment offering in late 2001, and successfully moved into two new market segments the following year with the launch of the Touareg luxury SUV and the Touran compact MPV. At the organisational level, restructuring of the business lines was flanked by ongoing efforts to cut costs by increasing flexibility and standardising the complex production structure of the Volkswagen Group.



ENGINE PRODUCTION AT THE SALZGITTER PLANT

Ferdinand Piëch, appointed Chairman of the Board of Management in 1993, strengthened the international competitiveness of the Volkswagen Group by setting up a flexible global production network. Under his leadership, globalisation of the Group progressed further. Various models destined for the world market were produced exclusively at international sites: the New Beetle and the Jetta in Mexico, the Touareg in Slovakia, the Sharan in Portugal, the Caddy in Poland and the Fox in Brazil. Piëch's successor Bernd Pischetsrieder continued to develop Volkswagen as a powerful multi-brand group from 2002 onwards. The priority task was to cut costs along the value chain, and a performance enhancement programme was therefore launched in 2004. The 2004 and 2006 collective agreements between the unions and management of Volkswagen Aktiengesellschaft marked further steps towards improving earning power.

In 2007, new Chairman of the Board of Management Martin Winterkorn formulated an unambiguous growth strategy, with the aim of making the Volkswagen Group the biggest-selling and most sustainable car-maker and turning Volkswagen into the world's most innovative volume brand by 2018. In order to achieve those ambitious goals, the multi-brand Group intends to win new customers with intelligent product innovations and harness the expansion potential offered by emerging markets. By building production plants in Russia and India, the Volkswagen Group has established a very promising competitive position to exploit the enormous growth potential of those emerging automotive markets. In the People's Republic of China, Volkswagen faces the challenge of maintaining the leading market position it has enjoyed almost uninterruptedly since 1985 in the face of competition from US and Japanese car-makers, who significantly expanded their manufacturing capacity once China joined the World Trade Organization in 2004. Despite intensified competition, China has become by far the largest single market for the Volkswagen Passenger Cars brand. By 2012, Group sales had soared to 2.815 million vehicles.

With its record sales and earnings achieved once again in 2012, the Volkswagen Group is well placed to combine volume growth with a rise in productivity. To make sure the company continues on the right track, Volkswagen is intent on optimising workflows and process organisation. Furthermore, the growing number of cross-brand vehicle modules will help to cut development and production costs and accelerate product innovations. The increased complexity demands new solutions for long-term management of processes. The Volkswagen Group is also fulfilling its responsibility to humanity and the environment in pursuit of its goal of being recognised as the world's most sustainable car-maker. The need to generate profits while consistently innovating and acting in keeping with corporate social responsibility underscores the challenge which the robust, multi-brand Group is mastering.



## 1992

**JANUARY 19** The new Vento four-door notchback saloon is presented to German and international media at an event in Wiesbaden lasting until January 31st. Taking its name from the Italian for wind, the successor to the Jetta is hailed as a “tourer par excellence”, offering spacious comfort allied to functionality. The 676 litre capacity boot is generous for touring needs, and can even be enlarged to 1,053 litres by folding down the rear seat bench. Featuring four petrol engines with power outputs between 55 kW/75 hp and 128 kW/174 hp and two diesel engines developing 47 kW/74 hp and 55 kW/75 hp respectively, the Vento is faster than a gust of wind yet as gentle and economical as a breeze. The Vento’s VR6 engine achieves a top speed of 225 km/h, while the turbo-diesel consumes just 4.9 litres per 100 kilometres at a steady 90 km/h. The Vento is built in Mexico and South Africa, and prices start from DM 25,960.

**AUGUST 13** Volkswagen runs an advertising campaign promoting the safety benefits of its airbag system. The driver and front passenger airbags available for the Golf, Vento and Passat help save lives. The passive safety system also includes in-door side impact bars, reinforced door sills and cross-members. Volkswagen is democratising automotive technology: “We believe safety should no longer be the privilege of the luxury class; airbags are for everyone.”

**NOVEMBER 23** Short-time working at the Emden and Kassel plants combined with a negotiated redundancy scheme mark the end of a flourishing decade for the automotive industry and a period of expansion for the Volkswagen Group. The sudden end of the boom caused by German reunification and stagnation in the international automobile industry characterise the crisis that began during the second half of the year and which, in 1993, leads to the worst global recession since the end of World War II. The Volkswagen Group suffers severe losses on domestic and Western European volume markets. Average workforce numbers drop by 7.4 percent.



VENTO

ADVERTISING FOR THE DRIVER AND  
FRONT PASSENGER AIRBAG

**Der Airbag für den Volkswagen-Fahrer.**

Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren. Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren. Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren.

**Der Airbag für den Volkswagen-Beifahrer.**

Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren. Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren. Der Fall der Notbremse ist ein Notfall. Der Fahrer muss sofort reagieren.

VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,657,605	3,499,678	167,830	358,105	927,286	306,490

PRODUCTION OF SELECTED MODELS

WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft	Group
Wage-earners	95,565	Germany	872,519
Salaried staff	23,022	Abroad	1,003,615
Workforce of foreign group companies	110,434	Total	1,876,134
Total	118,587		3,432,631

VEHICLE SALES

FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	53,182
Investments	4,063
Profit	132

## 1993

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**JANUARY 1** Ferdinand Piëch becomes Chairman of the Board of Management of Volkswagen Aktiengesellschaft.

**FEBRUARY 5** Through its subsidiary Volkswagen Group Holdings UK Ltd., Volkswagen Aktiengesellschaft takes over British importer V.A.G (United Kingdom) Ltd. from London-based Lonrho Plc. Backdated to January 1, 1993, the acquisition marks the full implementation of the sales strategy to take management control of the wholesaling of group products on all key European markets. On November 3, 1995 the company is renamed Volkswagen Group United Kingdom Ltd. and – like its counterpart Groupe Volkswagen France S. A. – is assigned responsibility for selling all the Group’s brands.

**MAY 19** Volkswagen Aktiengesellschaft and state-owned Polish corporation FSR Polmo establish the joint venture Volkswagen Poznań Sp.z.o.o., in which Volkswagen Aktiengesellschaft initially holds a 25.4 percent share. After the initial set-up phase, the facility assembles 20 Transporters a day starting in early 1994. The Volkswagen Group exploits the transformation of the former state-controlled economy to open up Eastern European markets and establish a lost-cost production base for light commercial vehicles. On January 10, 1996, Volkswagen Aktiengesellschaft increases its holding in the company to 59.2 percent. The Polish facility becomes the second centre of Volkswagen’s commercial vehicles operations in Europe.

**JULY 19** The Volkswagen Group establishes Volkswagen Asia-Pacific Ltd., based in Hong Kong, to consolidate the management of its holding and of ongoing projects in the region. The venture is operated under the auspices of the Group Management Board’s Asia-Pacific function, established on January 13, 1993 with responsibility for the concept design, development and production of Group vehicles in Asia and sales on Asia-Pacific markets. The Volkswagen Group’s strategic focus on China, Japan and Singapore aims to cut costs based on more flexible production in the region, as well as to open up emerging Asian markets such as Thailand, South Korea and India, where the Group has to date enjoyed little market share. Following the model of the Japanese vendors who dominate Asian markets, a regional supply and service network is to be established in order to minimise import restrictions, such as foreign exchange problems, in the Asia-Pacific region and to produce for regional markets as well as for export within the Volkswagen Group.

**SEPTEMBER 24** There is a new addition to the Golf family. The launch of the new Cabriolet based on the third-generation Golf updates Volkswagen's convertible model range. The "Dream in Golf" is built by Karmann in Osnabrück. It meets all the latest crash test requirements and, thanks to its tried and proven roll bar, also passes the roll-over test to US standards. Like the hatchback, standard equipment includes a comprehensive safety system made up of driver and front passenger airbags, ABS, safety belts with shoulder height adjustments, in-door side impact bars and effective crumple zones. The engine range for the Golf Cabriolet comprises a 1.8 litre unit developing 55 kW/75 hp or 66 kW/90 hp as well as a 2 litre unit developing 85 kW/115 hp. Prices start from DM 37,490.

**SEPTEMBER 24** For the first time, the Golf comes with a "happy end". The Golf Variant, meeting the growing demand for compact estates, is 32 centimetres longer than the hatchback at 4.34 metres in total, and has a 466 litre luggage capacity. With its rear seats folded forward, it provides a 164 cm long, largely flat load space, increasing capacity to 1,425 litres. Prices start from DM 24,960. The engine range starts with the entry-level 44 kW/60 hp petrol engine, as for the Golf hatchback, and also includes a 2 litre 85 kW/115 hp unit. From the beginning of 1994, the two 1.9 litre naturally aspirated diesel engines are joined by a TDI developing 66 kW/90 hp. The Golf Variant fitted with the top-of-the-range engine reaches a speed of 195 km/h. The TDI's top speed is 176 km/h, yet it achieves average fuel economy of just 5.3 litres per 100 km.



FERDINAND PIËCH



GOLF CONVERTIBLE

**OCTOBER 29** The new Passat saloon and the Passat Variant are launched. As roomy, reliable, powerful and economical as ever, the updated model has a new face and a dynamic appeal. The comprehensive package of safety features offered as standard includes driver and front passenger airbags, ABS, front seat belt tensioners, sturdy A- and B-pillars, as well as stiffeners in the doors, meaning the Passat even conforms to subsequent US safety standards. The Passat's range of equipment variants and engines

extending up to the 2.8 litre 128 kW/174 hp VR6, along with the four-wheel drive syncro option, means the car can be tailored to all its customers' needs – whether for added comfort or more sporty driving enjoyment. The new Passat is initially built at the Emden plant, and subsequently also in Bratislava. It is a class leader in environmental terms too: all its plastic parts are recyclable for example. Prices for the saloon start at DM 32,730, and for the Variant at DM 33,830.



GOLF VARIANT



PASSAT

## VOLKSWAGEN POZNAŃ



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,240,124	3,018,650	129,779	255,002	795,916	176,327

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft		Group
Wage-earners	86,176	Germany	685,170	914,488
Salaried staff	22,291	Abroad	717,783	2,047,671
Workforce of foreign group companies	102,434	Total	1,402,953	2,962,159
Total	108,467			

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	42,949
Investments	1,793
Profit/Loss	71



## 1994

**JANUARY 1** The introduction of the four-day week for Volkswagen Aktiengesellschaft employees subject to the collective pay agreement marks a new approach by the Board of Management, the Works Council and the IG Metall metalworkers' union in securing jobs and safeguarding the future of the company's production centres. To reduce the surplus manpower estimated at 30,000 posts, the working week at plants in Germany is reduced from 36 to 28.8 hours, implementing full flexibility combined with pay cuts. By 1999, the enhanced flexible working time concept has been implemented for almost all Volkswagen Aktiengesellschaft employees.

**MARCH 2** Volkswagen Finanz GmbH is transformed into a stock corporation, marking a step towards the internationalisation of financing operations. Volkswagen Financial Services AG is created as an independent company integrating most of the Volkswagen Group's European financial services subsidiaries and unifying their product portfolios. The new company has access to international money markets, enabling it to tap the most favourable sources of finance worldwide. Net assets at the year-end total DM 21.4 billion. A workforce of 1,435 in Germany and 801 abroad generates a net profit for the year of DM 187 million.



POLO PRODUCTION IN NAVARRA



KASSEL PARTS CENTRE





POLO

**MARCH 15** Volkswagen Sachsen GmbH puts its new press plant into service at the Mosel plant, which has also been involved in production of the Golf after the completion of its body shop in July 1992. Upgraded to lean production, the factory has capacity to output 250,000 vehicles a year. In 1994, it produces a total of 90,100 Golfs, of which 1,469 are the Golf Ecomatic model variant, built exclusively in Mosel. The factory is supplied by the engine plant in Chemnitz, which from 1994 onwards also supplies engines to the Wolfsburg and Brussels plants. Cylinder heads for Mosel production come from Eisenach. Some 3,200 people are employed at the Mosel, Chemnitz and Eisenach plants in 1994.

**APRIL 26** Volkswagen Aktiengesellschaft takes over Fábrica Navarra de Automóviles, S.A., which builds the Polo in Pamplona. In December 1994 the company is renamed Volkswagen Navarra, S.A., and in the course of the year produces just under 146,000 vehicles.

**JULY 4** The world's largest parts centre goes into operation at the Kassel plant, stocking parts for the Volkswagen Group's international production network.

**AUGUST 22** The third-generation Polo, now offered for the first time in a four-door version, is presented to the media in Paris. The new Polo, 50 mm shorter than its predecessor, offers astonishing interior space and functionality for a hatchback. With a wealth of attractive features including a comfortable, fully lined interior, offering generous amounts of space, a 245 litre boot capacity, superb handling and assured road-holding, as well as a comprehensive package of safety features including airbags, ABS, an electronic brake servo unit, mechanical/pyrotechnic seat belt tensioners and a torsionally rigid body, the Polo has become a highly functional five-seater, taking many of its cues from the Golf. The Polo is initially offered with a range of three petrol engines (33 kW/45 hp, 40 kW/55 hp and 55 kW/75 hp) and one diesel (47 kW/64 hp). The five-speed manual gearbox delivers excellent performance, and in conjunction with the 1.6 litre engine takes the car to a top speed of 172 km/h. The diesel unit consumes just 4.2 litres per 100 kilometres at a steady 90 km/h. The Polo is built at Pamplona in Spain and at Wolfsburg. Targeted at European markets, it is launched on October 7, 1994. Prices start at DM 18,295. On July 18, 1997, the Polo Variant is presented to the media in Bonn.

## LEAN PRODUCTION AT THE MOSEL PLANT



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,246,392	3,042,383	135,144	254,176	853,940	151,993

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	83,230
Salaried staff	22,208
Workforce of foreign group companies	96,459
Total	105,438

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	673,523
Abroad	725,825
Total	1,399,348

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	41,886
Investments	5,282
Profit	165

## 1995

**MARCH 9** The new Volkswagen MPV, the Sharan, celebrates its world premiere in Geneva. Positioned between the Passat Variant and the Caravelle, the Sharan offers lots of space for up to seven people. With its one-box design and smooth bodyline, the Sharan achieves an exemplary drag coefficient of 0.33. Safety features include side stiffeners, seat belt tensioners, twin airbags and a torsionally rigid body. Alongside those high-grade attributes, the Sharan's top-of-the-range engine, the 128 kW/174 hp VR6, powers it to a top speed of 200 km/h. The 66 kW/90 hp diesel engine consumes just 4.9 litres per 100 kilometres at a steady 90 km/h. Produced as part of a joint venture with Ford at a specially built factory in Palmela, Portugal, the comfortable MPV comes at a price starting from DM 41,950. It is launched onto the market on September 8, 1995.

**JULY 4** Volkswagen Aktiengesellschaft establishes a dedicated "Volkswagen Commercial Vehicles" brand to co-ordinate all its existing commercial vehicle operations. With effect from January 1, 2000, the new brand also takes industrial control of the commercial vehicles division of Volkswagen do Brasil.

**SEPTEMBER 14** The second generation of the versatile Caddy small van, built at Martorell in Spain, is premiered at the Frankfurt Motor Show. Available in station wagon and box van versions from mid-December, the Caddy offers room for five people or a 2.1 square metre load space with a 2.9 cubic metre volumetric capacity. The asymmetric split rear door aids loading. With its 550 kg payload capacity, the Caddy is primarily intended as a short-range load carrier for small and medium-sized businesses. It is also marketed as a universally usable leisure vehicle. The necessary power is provided by two petrol engines developing 44 kW/60 hp and 55 kW/75 hp, and two 47 kW/64 hp diesel engines. The entry-level price for the Caddy box van is DM 20,695.

VOLKSWAGEN COMMERCIAL VEHICLES BRAND

**Volkswagen  
Nutzfahrzeuge –  
eine starke  
Leistung  
aus Hannover**



**OCTOBER 7** The launch of the L 80 7.5 tonne truck extends the top end of Volkswagen's commercial vehicles range in Germany to start with. Originally developed for the South American market, where it has previously sold more than 100,000 units, the truck offers freight carriers a commercially attractive combination of tried and proven design and innovation. The L 80, built at Ipiranga in Brazil, comes in a choice of two wheelbases. Powerful and extremely robust, the 7.5 tonner features a 103 kW 4.3 litre four-cylinder diesel engine which already conforms to the Euro 2 emissions standard. Sales of the truck on European markets are well below expectations however.



SHARAN



L 80

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**NOVEMBER 16** The General Works Council and the corporate management sign an in-company agreement on environmental protection. It lays down rules for the economical and careful use of raw materials and energy, and for the responsible treatment of waste, emissions, waste water and hazardous materials. The principle underlying the agreement is: avoid rather than reduce; reduce rather than recycle; recycle rather than dump. Research and development activities, which have been carried out in accordance with those environmental principles since the early 1980s, will focus even more closely on the environmental sustainability of vehicles and manufacturing processes. The main areas of concern include optimising petrol and diesel engines, electronic monitoring and control systems, improved aerodynamics, light-weight construction, recyclability and the use of ecologically sustainable materials and components such as CFC-free air-conditioning systems and low-solvent paints. The presentation of Volkswagen's first Environmental Report on December 20, 1995 highlights the company's many accomplishments, but also sets out the challenges confronting a modern-day environmental management system. It provides a new channel for the company to intensify its dialogue with environmental bodies and with customers, as well as demonstrating Volkswagen's role as an innovator in CSR-related communications.

**NOVEMBER 17** Volkswagen Argentina S.A. opens a new car plant with an annual capacity of 150,000 vehicles in Pacheco near Buenos Aires. The plant, producing the successful Golf model and from 1996 the Polo too, operates according to the module system: Suppliers assemble components such as instrument panels, doors and fuel tanks on-site and then install them in the vehicles under their own responsibility.

## PACHECO PLANT OF VOLKSWAGEN ARGENTINA



## CADDY



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,317,656	3,408,422	141,355	260,169	815,875	382,785

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	79,031
Salaried staff	21,667
Workforce of foreign group companies	117,147
Total	100,698
	259,342

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	657,604
Abroad	917,931
Total	1,575,535
	3,441,946

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	44,598
Investments	5,618
Profit	410
	88,119
	6,863
	336



## 1996

**APRIL 22** The second generation of the Volkswagen LT is presented at the Hanover Industrial Fair. Available in three lengths and with a choice of four diesel engines, the van results from a development partnership with Daimler-Benz. It is identical in design to the Mercedes Sprinter. The Volkswagen LT is built at the Hanover plant, and comes in a wide range of body variants.

**AUGUST 27** The fifth generation of the Passat is presented to the international media at an event in Dresden lasting through to the month-end. Dynamically styled with a curved roof, the mid-class saloon embodies a new dimension of quality and exemplary durability. Its engineering, safety features and comfort make it “excitingly elegant, reassuringly safe”. Available in three equipment lines, the model’s range of five petrol engines deliver power outputs between 74 kW/100 hp and 142 kW/192 hp. Two TDI engines deliver 66 kW/90 hp and 81 kW/110 hp. Prices start at DM 34,950. The model is built at the Emden and Zwickau plants. The Passat Variant and Passat syncro are presented to the media at an event starting in Hamburg on May 20, 1997.



**NOVEMBER 1** Volkswagen do Brasil S.A. opens a truck and bus plant in Resende in the State of Rio de Janeiro with a yearly capacity of 30,000 vehicles. On October 12, the new engine plant in São Carlos in the State of São Paulo starts production. Engines come from Salzgitter and Chemnitz. By building up production facilities in Brazil and Argentina, Volkswagen succeeds in closing a capacity gap on the South America market caused by the end of the co-operation agreement with Ford. By the end of 1997, Volkswagen do Brasil employs some 31,000 people. With total production of 609,000 vehicles in the year, it remains the market leader both in passenger cars (32.6 percent) and light commercial vehicles (25.8 percent).

**NOVEMBER 4** The brand Management Board’s decision to transform the Braunschweig plant into a business unit accelerates its development from component manufacturer to system supplier and strengthens its competitiveness in the international components industry. The first Group location to be assigned responsibility for its own profitability as a largely autonomous business unit, it serves as a model for the transformation of other plants. The Braunschweig business unit uses its newly-won autonomy to strengthen its development expertise, expand process flow responsibilities and introduce leading-edge manufacturing technologies.

LT PRESENTATION

## TRUCK PRODUCTION IN RESENDE



## PASSAT



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,331,886	3,976,896	141,454	260,466	828,574	513,720

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	74,569
Salaried staff	20,607
Workforce of foreign group companies	123,042
Total	260,811

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	675,864
Abroad	1,016,454
Total	1,692,318

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	49,891
Investments	3,725
Profit	630

## 1997

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**APRIL 15** Following the abolition of the previously responsible Management Board function, the Volkswagen Group reorganises the Asia-Pacific region into separate units covering China, Japan and Singapore. Regional importer Volkswagen Group Singapore Pte. Ltd. manages Group CKD and FBU activities in the South East Asia and Pacific region, so as to operate closer to the strategically important markets of Taiwan, Thailand, Australia and New Zealand.

**AUGUST 1** The collective pay agreements for Volkswagen Aktiengesellschaft signed on July 14th come into effect. They extend employment safeguards to the end of 1999, although the four-day working week fundamentally retained by the new agreements is adapted to the needs of production by the introduction of even more flexible working times. The key element of the collective pay agreements is an early retirement scheme providing for a graduated transition to retirement through part-time working.

**AUGUST 10** The fourth-generation Golf is presented to the media in Bonn, and is exhibited at the Frankfurt Motor Show starting on September 12th. The body design featuring a long roof, steeply angled rear end and sweeping C-pillar is reminiscent of the first-generation Golf. Its faultless look, minimal panel gaps, absolute flush-fitting and harmonious jointing set a new quality standard in the compact class named after it. The leap in quality and aesthetic appeal of the new Golf is the result of lean production and the use of state-of-the-art technologies such as laser welding. A further expression of the new Golf's diverse attributes is the choice of five petrol and three diesel engines, with power outputs between 50 kW/68 hp and 110 kW/150 hp, available to customers right from launch. Improved aerodynamics and state-of-the-art TDI engines cut fuel consumption to 4.9 litres per 100 km. Prices for the Golf models built in Wolfsburg start at DM 25,700.

## GOLF ADVERTISING



## GOLF



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,187,869	4,290,875	155,436	380,157	625,336	593,392

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	77,713
Salaried staff	21,049
Workforce of foreign group companies	133,906
Total	98,762

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	668,485
Abroad	1,068,198
Total	1,736,683

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	54,285
Investments	7,840
Profit	966

# 1998

**JANUARY 5** The New Beetle has its world premiere at the Detroit Motor Show. Conceived not as a daughter of the legendary Beetle, but rather as a sister to the new Golf, the New Beetle's contemporary design embodies the style of an entire generation. In the USA especially, the model triggers absolute "Beetlemania". The appealingly curvy, bug-eyed design conceals the same state-of-the-art technology which has proved its worth in the fourth-generation Golf. Designed in accordance with the platform strategy, the New Beetle is built at the Puebla plant of Volkswagen de Mexico S.A. de C.V., where lean production assures its high quality. A petrol and a diesel engine are offered on launch, at prices starting on DM 34,950. The New Beetle has great emotional appeal, and provides Volkswagen with a major sales boost in the USA.

**MARCH 5** The restyled Golf Cabriolet is exhibited at the Geneva Motor Show. The open-top four-seater, technically based on the third-generation Golf, is styled in keeping with the new fourth-generation model, featuring the same innovative twin headlights and clear lens. The low-slung bonnet and the enlarged Volkswagen logo make the new Golf Cabriolet look even more striking. With an upgraded equipment spec and offering the tried and proven choice of four petrol and two diesel engines, the Golf Cabriolet is targeted at people who enjoy the finer things in life and also appreciate the high levels of safety assured by the sturdy roll bar. The new Golf Cabriolet is built by Karmann in Osnabrück. At prices starting from DM 36,650, it finds 39,126 happy owners in 1998.



NEW BEETLE

**MAY 13** Volkswagen establishes Motor Polska Sp.z o.o. in Polkowice, Poland. After just under a year under construction, the new engine plant is opened on August 25, 1999. It has annual capacity for 540,000 engines. The Polkowice facility supplies state-of-the-art four-cylinder diesel engines to Volkswagen Group vehicle plants.

**MAY 13** The Volkswagen Global Group Works Council is constituted for the first time. The contract between employee representatives and the Group's management is signed on May 20, 1999. Klaus Volkert is elected chairman of the Global Group Works Council.



LOGOS OF THE BENTLEY, BUGATTI  
AND LAMBORGHINI BRANDS



**JULY 3** The Volkswagen Group extends its portfolio in the luxury segment by procuring the Bentley brand. Volkswagen Group United Kingdom acquires Rolls-Royce Motor Cars Ltd., which – as Bentley Motors Ltd. – has been manufacturing Bentleys at the Crewe plant since September 2002.

**JULY 10** The Bugatti International S.A. holding company, which owns the rights to the former car-maker's brand name, is acquired by Volkswagen Group France S.A. On December 22, 2000, Bugatti Automobiles S.A.S. is founded with the aim of developing and manufacturing unique luxury sports cars.

**JULY 24** Audi AG acquires Automobili Lamborghini S.p.A., thereby bringing the famously uncompromising sports car make from Sant'Agata Bolognese into the Volkswagen Group.

**AUGUST 31** The economical and lovable little Lupo model is presented to the media in Geneva. It represents a new attractive offering from Volkswagen in the growing small car segment. Just 3,527 mm long, the compact offers space for up to five people. The front-end design featuring big round headlights imbues the Lupo with a friendly face. Like all Volkswagens, it is uncompromising in matters of safety. Engine choices are 1 litre and 1.4 litre petrol engines developing 37 kW/50 hp and 55 kW/75 hp respectively, and a 44 kW/60 hp diesel. The diesel engine Lupo consumes an average of just 4.4 litres per 100 km. The model's name – the Italian for wolf – hints at its Wolfsburg origins. The entry-level price is DM 17,990.

**SEPTEMBER 11** Volkswagen Aktiengesellschaft sets up a humanitarian fund for the forced labourers who worked for the Volkswagen company during World War II. Cash payments are made to more than 2,150 of those personally affected.

**SEPTEMBER 14** The media presentation of the Bora, the new notchback saloon technically based on the Golf, takes place at an event in Sardinia lasting until September 18th. Named after the fresh Adriatic wind – though in the USA still marketed under its existing Jetta name – the Bora is the youthfully dynamic embodiment of a notchback saloon, featuring four doors, a sporty design, and high levels of ride comfort. At 4,376 mm in length, and with a 2,513 mm

wheelbase, the Bora offers comfortable room for five people. The design conveys a sense of sportiness, strength and dynamism. A choice of four petrol engines developing up to 110 kW/150 hp of power speed the Bora to 100 km/h in 9.1 seconds, achieving a top speed of 216 km/h. The two diesel engines deliver average fuel economy of 5 litres per 100 km. A 455 litre capacity boot provides plenty of space for holiday luggage. Prices start from DM 32,500.



MOTOR POLSKA



LUPO



## BORA



## GOLF CONVERTIBLE



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,470,850	4,822,679	154,982	504,403	894,540	588,404

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	81,625
Salaried staff	22,167
Workforce of foreign group companies	142,481
Total	103,792
	297,916

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	873,224
Abroad	1,412,660
Total	2,285,884
	4,747,818

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	74,381
Investments	7,796
Profit	1,241
	134,243
	13,913
	2,243

## 1999

**FEBRUARY 4** By founding the Volkswagen (China) Investment Company Ltd. in Beijing, the Volkswagen Group bundles its existing and future investments in China in the hands of one holding company, so as to implement new automotive projects more rapidly.

**APRIL 1** Volkswagen Financial Services AG expands its operations by acquiring Wolfsburg-based insurer Volkswagen-Versicherungsdienst GmbH (VVD). The company, founded in 1948 by Heinrich Kurig and later owned by the Holler Foundation, offers Volkswagen customers comprehensive motor insurance services. By 2001, VVD has issued over 1.3 million policies. To consolidate the insurance operations of the Volkswagen Group, VW-Versicherungsvermittlungs-GmbH, a successful provider of insurance and risk management services established in 1976, is transferred to Volkswagen Financial Services AG with effect from January 1, 2005.

**APRIL 28** The two compact estates, the Golf Variant and Bora Variant, are presented to the international media in Berlin. While the 4.41 metre long Bora Variant, with its 460 litre luggage capacity, is targeted at leisure motorists looking for a sporty and luxurious touch, the assured and confident styling of the Golf Variant appeals to anyone looking for a practical, safe, high-quality Volkswagen in the compact estate class. The Bora Variant initially comes in a choice of three petrol and two diesel engines, with power outputs up to 110 kW/150 hp. The Golf Variant, which with its rear seat bench down offers as much as 1,470 litres of storage capacity, scores highly with the 66 kW diesel version, for example, offering fuel economy of just 5 litres per 100 km. The Bora Variant is priced starting at DM 34,400; Golf Variant prices start from DM 29,500.



GOLF VARIANT

**JULY 5** With the Lupo 3L TDI, presented to the international media in Gothenburg, Sweden, Volkswagen makes a piece of automobile history. The two-door compact, 3.53 metres in length, is the world's first production car to consume an average of only 3 litres of fuel per 100 km. With its 34 litre tank filled, it has a range of over 1,000 kilometres. This extremely low fuel consumption results from the advanced design of the three-cylinder TDI engine and the model's light-weight construction. Its doors, wings and bonnet are made of aluminium, while the tailgate is made of magnesium. Similarly light-weight materials are also employed for the axles and suspension. Consequently, the Lupo 3L TDI weighs just 830 kilograms – and its aerodynamic properties are also optimised. Economical in its consumption of energy and raw materials, the “3-litre” Lupo sets new standards in environmental protection.



BORA VARIANT



LUPO 3L TDI

## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,365,020	4,853,192	148,886	438,466	841,625	414,066

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	80,480
Salaried staff	23,723
Workforce of foreign group companies	147,959
Total	306,275

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	802,192
Abroad	1,385,497
Total	2,187,689

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	78,417
Investments	6,159
Profit	1,276

## 2000

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**MARCH 1** The third car factory built by Shanghai Volkswagen, complete with press plant, body shop, paint shop and assembly line, starts production. The facility builds the extended Chinese version of the Passat saloon, which at 30,000 units a year takes up just one fifth of the available capacity. Some of the Passat production is exported to Bangkok, where Volkswagen AG operates a CKD facility in conjunction with local company Yontrakit producing 10,000 vehicles a year. Passat assembly begins there in early 2000. In 2001 Volkswagen extends its product portfolio further in order to safeguard its market position in China for the long term. The Bora rolls off the production line in Changchun from August onwards, while production of the Polo starts in Shanghai in December. On October 31, 2001 the joint venture Volkswagen Transmission (Shanghai) Company Ltd. is set up to manufacture gearboxes for both models locally. Volkswagen Aktiengesellschaft has a 60 percent holding, and thus owns a majority share in a German-Chinese production joint venture for the first time. On January 28, 2003, the newly built gearbox factory in Shanghai is opened. In its initial configuration, it has an annual capacity of 180,000 units.

**APRIL 14** Volkswagen expands its position on the international commercial vehicles market by acquiring 18.7 percent of the shares and 34 percent of the voting rights in Swedish manufacturer Scania AB.

**JUNE 1** The Volkswagen Group opens the “Autostadt” in Wolfsburg. The combination of visitor experience, service facility and centre of excellence also for the first time handles deliveries of vehicles to retail customers in person. This new innovative facility provides a channel by which Volkswagen seeks to enhance customer loyalty to the Group’s brands and reach out to new customers.

## AUTOSTADT IN WOLFSBURG



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,170,411	5,156,455	162,699	631,852	915,383	463,163

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft	Group
Wage-earners	79,645	Germany	731,764
Salaried staff	25,030	Abroad	1,511,803
Workforce of foreign group companies	160,274	Total	2,243,567
Total	104,675		5,161,188

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION DM)

Volkswagen Aktiengesellschaft	Group
Sales revenue	84,975
Investments	8,878
Profit	1,612

## 2001

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**JANUARY 1** Importer Volkswagen Group Australia Pty. Ltd., founded in Alexandria, starts selling Volkswagens in order to open up the Australian market under its own management. The new headquarters, employing 60 people, opens on March 17th. Volkswagen is now the best-selling European brand in Australia. Volkswagen's Australian subsidiary aims to compete with the dominant US and Japanese manufacturers by establishing an exemplary dealership and service network. Stocking of parts, in particular, is intended to shorten repair times and so enhance customer satisfaction. The expansion and reorganisation of the sales network is complete by the end of the year.

**AUGUST 16** For the manufacture of the Touran compact MPV based on the Golf platform, Volkswagen establishes Auto 5000 GmbH, which builds a factory on the Wolfsburg site. Production starts in December 2002, and is characterised by flat hierarchies, team working and more process competence being delegated to employees. A special collective agreement is reached with the IG Metall union, whereby responsibility for agreed volumes and quality standards is transferred directly to employees. Daily working time is flexible, and oriented to fulfilment of the set programme. The manufacturing concept is linked to a qualification model reliant on the willingness of individual employees to learn under their own responsibility. The standard training course is extended by three hours of tuition per week. After a period of two years, this leads to a Chamber of Industry and Commerce accredited car manufacturing qualification ("Automobilbauer IHK"). Auto 5000 GmbH employs 3,500 people.

**OCTOBER 29** The fourth-generation Polo is presented to the international media in Sardinia. Stylistically and technically, it belongs to a class of its own between the Golf and the Lupo. Despite its compact size, though now slightly larger externally, its interior is larger than that of its predecessor. It is a comfortable, ergonomically styled environment, featuring high-quality materials. The chassis, featuring a new twist-beam rear suspension and optimised independent suspension, is as agile as it is safe. The Polo is initially available with a choice of seven different engines, ranging from 40 kW/55 hp to 74 kW/100 hp. Prices start from EUR 11,225.





TOURAN PRODUCTION



POLO



**DECEMBER 11** Just under two and a half years after the foundation stone was laid on July 27, 1999, Volkswagen Aktiengesellschaft opens the “Gläserne Manufaktur” glass-fronted manufacturing showcase in Dresden. The facility, featuring sound-proof glazing all around, is based on a new concept combining industrial car production and high-quality craftsmanship within a transparent architectural setting. The “transparent factory” also breaks new ground as a service facility in which the manufacturing process is showcased as a visitor attraction. For the first time, buyers are provided with a service which enables them to watch their cars being made, live and in person. The object of this is to strengthen the emotional bond between the customer and the Volkswagen brand.



POLO ADVERTISING

“TRANSPARENT FACTORY” IN DRESDEN



VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
1,103,505	5,107,945	151,722	737,449	855,368	391,219

PRODUCTION OF SELECTED MODELS

WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft	Group
Wage-earners	79,557	Germany	692,659
Salaried staff	26,004	Abroad	1,463,304
Workforce of foreign group companies	155,755	Total	2,155,963
Total	105,561		5,107,142

VEHICLE SALES

FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	44,197
Investments	4,294
Profit	918

## 2002

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**JANUARY 1** Volkswagen Aktiengesellschaft acquires Scania's half-share in Swedish importer Svenska Volkswagen AB, thereby taking over sole ownership of it. Founded in 1968, the company now handles imports and sales of the Volkswagen, Audi, Seat, Škoda and Porsche brands.

**MARCH 6** The Phaeton has its world premiere at the Geneva Motor Show. The 5.06 metre long, 1.90 metre wide and 1.45 metre high notchback saloon marks Volkswagen's first entry into the luxury car class. The Phaeton's design is expressive and progressive down to the last detail. Its safety features, air suspension, torsionally rigid body, draught-free climate control system, intuitive user-friendliness, high-grade interior fittings and superb craftsmanship underscore the confidence of a model which embodies the upscaling of the Volkswagen brand. At launch, the entry-level engine is a V6 unit; the top-of-the-range engine is the 309 kW/420 hp W12. Prices start from EUR 56,200.

**APRIL 16** The Supervisory Board appoints Bernd Pischetsrieder as Chairman of the Board of Management of Volkswagen Aktiengesellschaft.

**APRIL 16** Ferdinand Piëch becomes Chairman of the Supervisory Board of Volkswagen Aktiengesellschaft.

**JUNE 25** The Golf overtakes the legendary Beetle, its 21,517,415 units making it the most-built Volkswagen model ever. Almost 40,000 employees at the plants in Wolfsburg, Mosel, Brussels, Bratislava, Uitenhage and Curitiba produce more than 3,600 Golfs every working day.



BERND PISCHETSRIEDER



FERDINAND PIËCH



THE MOST-BUILT VOLKSWAGEN MODEL:  
THE GOLF

**SEPTEMBER 26** The Touareg has its world premiere at the Paris Motor Show. Starting on September 30th, motoring journalists from all over the world are invited to test out the new luxury-class sports utility vehicle which has successfully taken the Volkswagen brand into yet another new market segment. The concept underlying the model combines the attributes of a high-quality off-roader with the comfort of a top-class saloon and the dynamics of a sports car. The Touareg sets new standards in its class, particularly with its vertically adjustable pneumatic suspension and its V10 TDI engine – the most powerful passenger car diesel engine in the world, developing 230 kW/313 hp and 750 Nm of torque. In 2003 the Touareg is nominated “Best luxury SUV”, and in 2004 it is voted Sports Utility Vehicle of the Year in the USA. Prices for the Touareg R5 TDI start from EUR 38,400. It is built by Volkswagen Slovakia, a.s. in Bratislava.

**OCTOBER 10** The New Beetle Cabriolet is presented to the world’s media in Miami. Marketed under the slogan “Open your heart”, the convertible embodies emotionality, optimism and joie-de-vivre. The characterful open-top four-seater, built in Puebla, Mexico, also features a roll bar which automatically deploys when needed, maintaining the highest safety standards while remaining true to the car’s avant-garde design. Launched in Germany on March 27, 2004 under the slogan “Hello Sunshine”, customers are able to choose between four petrol engines with power outputs up to 110 kW/150 hp and a 74 kW/100 hp TDI. Top-down fun can be had for as little as EUR 20,075.



TOUAREG

## NEW BEETLE CABRIOLET



## PHAETON



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4	Passat	Golf	Polo
956,617	5,023,264	137,913	709,897	774,718	523,512

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	78,360
Salaried staff	26,344
Workforce of foreign group companies	157,887
Total	104,704
	324,892

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	641,505
Abroad	1,421,878
Total	2,063,383
	4,996,179

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	43,087
Investments	3,870
Profit	1,036
	86,948
	16,016
	2,597



## 2003

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**FEBRUARY 17** Volkswagen's new compact MPV, the Touran, is presented to the media in Estepona near Malaga, Spain. With a choice of five or an optional seven single seats, variable interior configuration and generous amounts of space including a 1,989 litre luggage compartment capacity, the multi-purpose vehicle based on the Golf platform is highly versatile. The chassis features updated front suspension struts and an innovative four-link rear suspension. In conjunction with ESP, it delivers supreme stability, comfort and agility. The engine range in launch year comprises three petrol and two diesel engines with power outputs between 74 kW/100 hp and 110 kW/150 hp. Prices start from EUR 21,100. The Touran immediately becomes the class leader in Germany, selling more than 101,000 units by the year-end.

**FEBRUARY 28** The establishment of Volkswagen Individual GmbH is in line with the Group-wide policy of fulfilling diverse customer needs and wishes in a comprehensive manner. The new company is positioned as a vendor of exclusive, custom-finished sports models of the Volkswagen brand. In 2010 the business is taken over by Volkswagen R GmbH, and its product range is extended with new customisation packages and equipment lines.

**MAY 9** The fifth Transporter generation is launched in numerous variants. While the Multivan and the California recreational vehicle target private customers, in its panel van, station wagon or flat-bed variant the Transporter mainly attracts business buyers. Enormous variability is the characteristic shared by all product groups, providing customised and practical solutions for all manner of purposes. Two petrol engines developing 85 kW/115 hp and 173 kW/235 hp respectively, as well as three diesel engines with power outputs between 77 kW/104 hp and 128 kW/174 hp, make the T5 quick and economical. Despite its overall length of 4.98 metres, the chassis set-up ensures car-like handling. McPherson strut front suspension and the upgraded semi-trailing arm rear suspension provide enhanced ride comfort. Prices for the panel van start from EUR 21,947; the Multivan can be had for EUR 36,117.

**JULY 30** The last Beetle leaves the production line at the Puebla plant of Volkswagen de Mexico. Volkswagen has built 21,529,464 of this legendary model in total.



**SEPTEMBER 22** The international media get to know the fifth-generation Golf at an event in Wolfsburg lasting until October 13th. The Golf's design is strong and dynamic. As the world's first mass-produced car with a steel body, the Golf 5 has modular doors, meaning that in the event of damage only the outer skin has to be replaced rather than the entire door, so saving time and money. 70 metres of laser welds increase body rigidity. The safety chassis, with its much-refined front struts and a newly developed multi-link suspension, guarantee sportiness allied to improved ride comfort. Volkswagen has enhanced engine economy with a fuel-saving innovation in gearbox technology. The Golf 5 is one of the first models available with a newly developed dual-clutch direct-shift gearbox (DSG), providing the Volkswagen Group with a competitive edge. Extremely short shift times in combination with the subsequently introduced 3.2 litre VR6 engine, for example, deliver exceptional performance and a marked reduction in fuel consumption. The Golf initially rolls off the production lines in Wolfsburg, Zwickau and Brussels.

**OCTOBER 1** The nine independent German sales companies are merged into Volkswagen Original Teile Logistik GmbH & Co. KG, based in Baunatal, in order to promote sales of original spare parts on the German market. Volkswagen holds 52 percent of the shares, the rest being held by Volkswagen dealers.



GOLF



LAST BEETLE

**OCTOBER 16** The new Caddy premieres at the RAI commercial vehicles show held in Amsterdam and lasting until October 25th. It enters production at the Poznań plant. The compact van successfully makes the compromise between a multi-purpose vehicle for both business and private mobility applications and a passenger car. The load space of the panel van version has increased by 300 litres to 3.2 cubic metres. The estate provides seven seats if required – a novelty in the small van sector. The Caddy's advanced engineering is based on the new Golf and the Touran, and is built on their platform. More than half of its components originate from those models, enabling the Commercial Vehicles division to benefit from the economies of scale of mass production in manufacturing the Caddy. The Caddy is launched in the Spring of 2004, with two petrol and two diesel engines, at prices from EUR 12,230.

**DECEMBER 1** Volkswagen Aktiengesellschaft and the Chinese government sign a declaration of intent to intensify co-operation by manufacturing new products and establishing further joint ventures. The People's Republic of China has grown into the second biggest single market after Germany for the Volkswagen Group, accounting for some 698,000 vehicle sales in 2003. Of that total, 298,000 units are sold by FAW-Volkswagen, which has expanded its model range to include the Audi A4, the New Audi A6 and the Golf 4. In 2004 FAW-Volkswagen commissions its second car plant into operation.



TOURAN

## CADDY



## TRANSPORTER



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T4/T5	Passat	Golf	Polo
993,716	5,020,733	154,959	727,594	647,067	422,003

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	77,627
Salaried staff	26,194
Workforce of foreign group companies	160,299
Total	103,821
	336,843

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	636,782
Abroad	1,304,529
Total	1,941,311
	5,015,911

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	45,425
Investments	3,929
Profit	633
	87,153
	15,810
	1,118

## 2004

**JULY 13** The Volkswagen Group expands production capacity on the Chinese market in order to exploit its future potential. Following the creation of Volkswagen FAW Platform Company Ltd. in Changchun, which manufactures chassis components for the car-making joint venture companies, the contracts for two engine-building joint ventures are signed on December 6. From 2006, FAW Engine (Dalian) Company Ltd. will focus on building low-emission engines for mid-class vehicles, while Shanghai Volkswagen Powertrain Company Ltd. will manufacture engines for compact cars. Volkswagen thereby meets the capacity shortfall triggered by the boom in demand and simultaneously increases the local content of the models produced in China. Volkswagen (China) Investment Company Ltd. holds 60 percent of the shares in each of the newly established industrial ventures.

**DECEMBER 4** The Golf Plus premieres at the Bologna Motor Show. At 1.59 metres, the model is almost 10 cm taller than any other in the Golf family. All seat positions in the Golf Plus have been substantially raised, resulting in improved visibility. The model's rear seat bench can be adjusted by as much as 16 cm forward and back. With the rear seat bench folded down, this then provides a boot capacity of 1,450 litres. The Golf Plus launches with two petrol and two diesel engines, featuring power outputs up to 103 kW/140 hp. The base price is EUR 16,740.



GOLF PLUS

FOUNDATION LAYING AT  
VOLKSWAGEN PLATFORM COMPANY LTD.

SHANGHAI VOLKSWAGEN



VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
934,969	5,093,181	148,552	617,649	711,883	334,143

PRODUCTION OF SELECTED MODELS

WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	76,479
Salaried staff	26,041
Workforce of foreign group companies	165,152
Total	102,520
	342,502

VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	660,322
Abroad	1,332,746
Total	1,993,068
	5,142,759

FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	47,707
Investments	4,600
Profit	505
	88,963
	15,079
	716



## 2005

**JANUARY 7** The Jetta has its world premiere at the Los Angeles Motor Show. It is launched in the USA in March, and in Europe in August. In Europe, the second generation of the Jetta had been followed by models named Vento and Bora; this fifth-generation model reverts to the same name for all markets worldwide. The notchback saloon built at Puebla in Mexico marks a further step in the globalisation of Volkswagen. The Jetta is sportier in design than its predecessor, highlighted by the V-shaped chrome radiator grille. The spacious interior and 527 litre boot capacity make the compact saloon the ideal car for touring. There is a choice of four petrol engines, a direct-injection unit developing 147 kW/200 hp being the most powerful, as well as two diesel engines. The base model costs EUR 19,200.



FOX PRESENTATION

**MARCH 3** The sixth-generation Passat premieres at the Geneva Motor Show. The vehicle's athletic silhouette represents a design leap. The front end with its chrome shield radiator and eye-like headlights is typical of the Volkswagen brand's contemporary look. The new chassis, comfortable interior and further increased boot capacity make the Passat the ideal long-distance tourer. High-tensile, shape-hardened steel panels are used for the saloon and estate version bodies, meeting the toughest crash specifications and offering maximum safety. Apart from the 75 kW/102 hp entry-level unit, the engine range includes three petrol engines with homogeneous direct fuel injection. Three TDI engines ranging from 77 kW/105 hp to 125 kW/170 hp make the Passat both highly dynamic and environmentally friendly. It can also be fitted with a diesel particulate filter. Prices for the Passat start from EUR 22,100.

**APRIL 1** The Fox is launched onto the European market at the Auto Mobil International motor show in Leipzig. The vehicle, built at the Volkswagen sites in Brazil and Argentina, adds a functional entry-level model to the product range. Just 3,828 mm long, the compact Fox offers room for four people. It is powered by a choice of two petrol engines developing 40 kW/55 hp or 55 kW/75 hp, or a 55 kW/70 hp diesel. With the rear seat bench folded down, the luggage compartment has a 1,016 litre capacity. At an entry-level price of EUR 8,950, the Fox is the lowest-cost Volkswagen.

**JULY 6** Bernd Osterloh takes over as Chairman of the General and Group Works Councils of Volkswagen Aktiengesellschaft.



PASSAT



BERND OSTERLOH



FOX



JETTA



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**SEPTEMBER 13** The Volkswagen Group places its successful co-operation with Allianz AG spanning over 50 years on a new footing. By establishing its own reinsurance company, Volkswagen Reinsurance AG, Volkswagen Financial Services AG gains more influence over the development and pricing of insurance products, so as to tailor its services to suit individual customer needs. With 1.6 million insurance policies and a broad range of financing and leasing packages, the Braunschweig-based group has become Europe's largest provider of automotive financial services. In 2005 the Volkswagen Group's Financial Services division, with subsidiaries in 35 countries, accounts for just under half the net assets stated on the balance sheet.

**SEPTEMBER 15** The first direct-injection petrol engine with an integrated compressor and turbocharger debuts in the Golf GT at the Frankfurt Motor Show. The new generation of Volkswagen engines sets the standards in terms of dynamics and fuel efficiency. The 1.4 litre engine develops a maximum torque of 240 Nm and a power output of 125 kW/170 hp, with average fuel consumption of 7.2 litres per 100 km. The Golf GT is also available with the 125 kW/170 hp TDI engine. Prices start from EUR 22,500.

**SEPTEMBER 25** Dr. Ing.h.c. F. Porsche AG announces its intention to acquire approximately 20 percent of the voting share capital in Volkswagen Aktiengesellschaft. At December 31, 2005 the Stuttgart-based company holds 18.5 percent of the voting share capital.

GOLF GT TSI



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
956,108	5,219,478	177,956	578,141	732,922	352,120

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft	Group
Wage-earners	75,185	Germany	719,625
Salaried staff	25,843	Abroad	1,432,366
Workforce of foreign group companies	166,213	Total	2,151,991
Total	101,028		5,192,576

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	50,245
Investments	7,229
Profit	741

## 2006

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**APRIL 28** The Crafter, built in co-operation with Daimler AG, is launched onto its first markets. The successor to the LT continues the light truck series launched in 1975 featuring a striking contemporary design, the familiar V-shaped radiator grille and enhanced standards of technology, safety and efficiency. As the ideal complement to the Transporter, the three base models cover the heavier three, three-and-a-half and five tonnes classes. The new super-high 2.14 metre cargo compartment roof of the panel van – one of several roof options – is just as prominent as the position held by the Crafter in the light truck segment.

**MAY 15** In order to establish a production facility in Russia, Volkswagen creates a new company, OOO Volkswagen RUS, based in Kaluga, some 160 kilometres south west of Moscow. The new factory, which assembles SKD Volkswagen and Škoda brand models, is commissioned on November 28, 2007 after a construction period of one year. Volkswagen Group Rus OOO is responsible for sales of Group vehicles.

**MAY 19** The Eos convertible coupe is launched onto the market. The four-seater is the first production car to feature a five-part roof integrating a sliding and tilting sun roof. The coupe becomes a convertible at the touch of a button in just 25 seconds. Alternatively, the glass front section of the roof can be opened completely or tilted up. The Eos thus offers a high degree of everyday utility the whole year round. Built at the Setubal plant in Portugal, and named after the mythical Greek Goddess of the Dawn, the Eos is offered with a choice of four petrol engines developing power outputs of up to 184 kW/250 hp as well as a 103 kW/140 hp TDI engine. The basic version of the new convertible coupe costs EUR 25,950.

**OCTOBER 3** Volkswagen Aktiengesellschaft acquires a strategic 15.06 percent holding in MAN AG, one of the world's leading truck and diesel engine manufacturers, thus safeguarding the production and marketing interests of the Volkswagen Commercial Vehicles brand with a view to the emerging co-operation between MAN and the Swedish company Scania AB. In 2007, Volkswagen Aktiengesellschaft raises its stake in MAN to 29.9 percent and its stake in Scania to 37.4 percent of the voting rights.

**NOVEMBER 1** The collective pay agreement negotiated for Volkswagen Aktiengesellschaft comes into effect. It defines key elements of a restructuring programme designed to align productivity, labour costs and capacity utilisation with the competition. For the six German plants, the abolition of the four-day week introduced in 1994 is the central provision of the agreement. A rise in standard working time to a maximum of 33 hours a week for production and 34 hours a week for administration posts is linked to production commitments securing capacity utilisation and jobs for the coming years. In return for waiving a pay increase reflecting the increase in working hours, employees receive a lump-sum one-off payment to their company pension scheme. The agreement also introduces a new profit-sharing system.

EOS



CRAFTER



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
953,131	5,659,578	204,151	701,074	693,376	401,551

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	68,986
Salaried staff	25,014
Workforce of foreign group companies	155,935
Total	94,000
	324,875

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	761,033
Abroad	1,507,797
Total	2,268,830
	5,720,096

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	53,036
Investments	8,738
Profit	945
	104,875
	11,911
	2,750

## 2007

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**JANUARY 1** Martin Winterkorn, appointed by the Supervisory Board as Chairman of the Board of Management of Volkswagen Aktiengesellschaft on November 17, 2006, formally takes up his post.

**FEBRUARY 6** Volkswagen India Private Limited is founded in Pune, Maharashtra state, creating the basis for building a car plant in one of the fastest-growing emerging markets. This milestone was preceded by an investment agreement with the Indian government concluded on November 19, 2006. The Volkswagen Group is putting up a total of 580 million euro to build a production facility with a press plant, body shop, paint shop and assembly lines. In the intervening period, Volkswagen will use the production capacities at the Škoda factory in Aurangabad built in 2002. Volkswagen Group Sales India Private Limited, established in Mumbai on March 7, 2007, is responsible for sales of imported and locally built Group vehicles.

**MARCH 8** The Tiguan compact SUV is exhibited at the Geneva Motor Show. Thanks to its variable interior, the compact off-roader based on the Golf has the attributes of an all-rounder and features many technical innovations, including the new 4MOTION four-wheel drive and the electro-mechanical steering system developed in co-operation with the Volkswagen Group's component plant in Braunschweig. The Tiguan is powered by a choice of three turbo-charged or supercharged FSI engines and two Common Rail four-cylinder units forming part of a new generation of noticeably quieter TDI engines and complying with the Euro 5 standard applicable as from 2009. Prices for the Tiguan start at EUR 26,700.

**APRIL 27** The Volkswagen Group presents the world's first seven-speed dual-clutch gearbox at the Vienna International Engine Symposium. It is more efficient than conventional automatic transmissions, and cuts fuel consumption compared to a manual gearbox by as much as 15 percent.



7-SPEED DUAL-CLUTCH TRANSMISSION



MARTIN WINTERKORN



TIGUAN

**DECEMBER 3** Four in-company agreements signed by the Group Board of Management and Group Works Council set out the “Volkswagen Way”, laying the foundations for the future corporate development of the Volkswagen brand. In essence, these agreements aim to raise productivity while simultaneously securing jobs and ensuring profit-sharing, as well as introducing unified standards for team working. With the help of the workforce, there is to be continuous improvement in workflow and process organisation in all areas of the company.



“AUTOGRAMM” SPECIAL EDITION



TIGUAN ADVERTISING



ALWAYS IN SIGHT: THE VOLKSWAGEN WAY



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,075,997	6,213,332	210,297	751,764	763,491	449,602

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group	Volkswagen Aktiengesellschaft	Group
Wage-earners	65,738	Germany	721,873
Salaried staff	24,730	Abroad	1,643,744
Workforce of foreign group companies	160,568	Total	2,365,617
Total	90,468		6,191,618

## VEHICLE SALES

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	55,218
Investments	7,953
Profit	1,455

## 2008

**JANUARY 19** The new Passat CC mid-class premium model, built at the Emden plant, is launched at the North American International Auto Show. Combining the attributes of an elegant saloon and a dynamic coupe, the car is powered by a range of economical yet powerful TSI and TDI engines from 103 kW/140 hp to 220 kW/300 hp, achieving top speeds of 213 and 250 km/h respectively. The Passat CC also marks Volkswagen's production launch of innovative technologies including Lane Assist and the adaptive chassis control system DCC. The basic Passat CC costs EUR 30,300.

**FEBRUARY 6** The Routan debuts at the Chicago Auto Show. The substantial minivan designed for the US market is based on a Chrysler model. It is over five metres long and has room for up to seven seats. Up until 2013, the Routan is built at Chrysler's Canadian plant in Windsor, Ontario.



**MARCH 4** The Volkswagen Scirocco rolls off the production line at the company's plant in Setubal, Portugal. The legendary two-door sports coupe's comeback closes a gap in the Volkswagen product range. Now in its third generation, the dynamic Scirocco combines sportiness with everyday utility. It features a strikingly sporty design, embodied in the long coupe roof, athletic silhouette and very broad-shouldered rear-end. The Scirocco can accommodate four adults in comfort. The desired power is provided by a range of engine choices initially extending up to a 147 kW/200 hp turbo – all of them torquey, economical and low-emission – as well as the optional 7-speed DSG dual-clutch direct-shift gearbox. Scirocco prices start at EUR 21,750.

**APRIL 20** The regionalisation of the model range is progressed further. The New Bora and Lávada models for the Chinese market have their world premieres at the Auto China show in Beijing. Engineered on the basis of the Jetta, the 4.54 metre long New Bora built by FAW-Volkswagen in Changchun is tailored to the needs of Chinese customers; as is the Lávada: made by Shanghai Volkswagen, it offers a choice of three engine lines and features an extensive chrome package.

ROUTAN

PASSAT CC



SCIROCCO



LAVIDA

GOL

**JULY 1** In Brazil, the new-generation Gol is launched. The two engines on offer, with 1.0 and 1.6 litre capacities and developing power outputs of 53 kW/72 hp or 74 kW/100 hp, feature TotalFlex technology which enables them to run on petrol or ethanol, or on a mixture of the two. The compact, of which more than 5.7 million units have already been produced to date, has been one of the best-selling cars in South America for many years.

**JULY 22** Volkswagen Aktiengesellschaft increases the stake it has held in Scania AB since the year 2000 to 68.8 percent. The Swedish truck manufacturer with a workforce of almost 33,000 is integrated in the Volkswagen Group as the ninth brand. Scania, which is highly profitable and extremely innovative, is one of Europe's leading truck manufacturers. The premium brand is a trailblazer in the development of low-consumption, low-emission engines. The product range includes heavy trucks above 16 tonnes, buses and coaches as well as industrial and marine engines.



GOLF IN ICELAND

**SEPTEMBER 29** The media presentation of the sixth-generation Golf takes place in Iceland. In only five years Volkswagen progressed with the evolution of its classic icon and created a perfected Golf – quieter, safer and more environmentally friendly than ever before thanks to 120 sections of noise insulation, seven airbags and an efficient yet powerful engine range. The TSI and Common Rail diesel engines with power outputs from 59 kW/80 hp to 118 kW/160 hp cut fuel consumption by as much as 28 percent. All comply with the Euro 5 emissions standard. The quality and technology of the new Golf completely redefine the standards in its class. Highlights include assistance systems such as ParkAssist and adaptive suspension, which ensures that the suspension is adapted to suit the road and driving situation. The base model costs EUR 16,500.

**DECEMBER 15** Volkswagen Aktiengesellschaft disposes of its Brazilian commercial vehicles subsidiary Volkswagen Caminhões e Ônibus Indústria e Comércio de Veículos Comerciais Ltda. Effective January 1, 2009, ownership of the company known under the name of Volkswagen Trucks & Buses is transferred to MAN AG, which thus gains access to the Latin American market via the sales network of Brazil's largest truck manufacturer and plans to leverage synergy potentials in the production network. As a result of the sale, the Volkswagen Group focuses its commitment in the truck business on Scania, the new Group brand, and its existing 30 percent stake in MAN. In addition, the Volkswagen Commercial Vehicles brand will continue to serve the light commercial vehicles market.

## GROUP BRAND SCANIA



## GOLF



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,137,145	6,346,515	213,837	764,321	764,776	408,679

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	64,569
Salaried staff	25,794
Workforce of foreign group companies	195,586
Total	369,928

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	724,257
Abroad	1,663,757
Total	2,388,014

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	56,710
Investments	11,281
Profit	827

## 2009

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**JANUARY 5** Porsche Automobil Holding SE holds 50.76 percent of the ordinary shares in Volkswagen Aktiengesellschaft.

**JANUARY 18** Volkswagen, famed for its innovation and reliability, writes motorsport history on the 2009 Rallye Dakar in Argentina and Chile: A Race Touareg powered by a 206 kW/280 hp TDI engine becomes the first diesel vehicle to top the automobile class in the 30-year history of the event. The success of the winning South African-German duo Giniel de Villiers and Dirk von Zitzewitz is backed up by their Volkswagen team colleagues Mark Miller and Ralph Pitchford who take second place.

**MARCH 30** The fifth-generation Polo, completely redesigned and with an entirely new look, is put into production at the Volkswagen plant in Pamplona, Spain. The Polo sets a new benchmark in terms of quality, feel, design, safety and efficient engine power. The increased structural strength of the body enhances deformation capacity in the footwell area in the event of a head-on crash by 50 percent. The range initially features five engines, including for the first time a TSI and a Common Rail TDI, offering power outputs between 44 kW/77 hp and 75 kW/105 hp. The fuel efficiency of the petrol engines is improved by 8 to 20 percent and that of the diesel engines by as much as 15 percent. The Polo, which with the launch of the fifth generation surpasses the 11 million units produced mark, proves extremely popular and collects numerous awards, including “Car of the Year 2010” and “World Car of the Year 2010”. Prices start from EUR 12,150.

**MARCH 31** A new Volkswagen plant is opened in Pune, India, with annual capacity to produce 110,000 vehicles. In May 2009, following a 580 million euro investment, the plant begins production of the Škoda Fabia compact. A Volkswagen Polo model developed specially for the Indian market follows in late 2009. The facility incorporating the complete production chain – from the press plant, body and paint shops, to final assembly – is a cornerstone in attaining the targeted growth in India.

**MAY 23** Playing refreshingly open, attacking football, the VfL Wolfsburg club brings the German Bundesliga title to Volkswagen’s home city. 12 years after gaining promotion to Germany’s elite league, the team achieves its greatest success to date. The victory convoy of Eos models ends with the traditional reception in front of a huge crowd at the town hall, where the victorious team has its opportunity to thank Wolfsburg’s soccer-mad fans.

**AUGUST 13** Volkswagen Aktiengesellschaft and Porsche Automobil Holding SE sign an agreement in principle to create an integrated automotive concern incorporating Porsche under the leadership of Volkswagen. With the approval of the two companies’ Supervisory Boards, Volkswagen Aktiengesellschaft first acquires a stake in Dr. Ing. h.c. F. Porsche AG and then, in a second step, purchases the distribution business of Porsche Holding Salzburg from the Porsche and Piëch family shareholders. Part of the integration strategy is for the State of Qatar to acquire the share options held by Porsche Automobil Holding SE, and that phase is essentially completed by the end of August 2009. Porsche will retain its independent identity within the framework of the Volkswagen Group’s existing successful multi-brand strategy.



KALUGA PLANT



RALLY DAKAR



POLO

VOLKSWAGEN PUNE



**OCTOBER 20** The plant in Kaluga, Russia, with annual capacity for 150,000 vehicles, switches to complete vehicle production, incorporating in-house body and paint shops as well as a final assembly line. The workforce of some 3,000 outputs a total of 95,079 complete units of the Volkswagen Tiguan and Polo saloon models as well as the Škoda Octavia and Octavia Tour in 2010. The Kaluga facility also assembles the Volkswagen Passat, Golf and Touareg, the Caddy Life and the Škoda Fabia on an SKD basis.

**OCTOBER 29** At the meeting of the Volkswagen Group's Global Works Council held at the Zwickau plant, the Group Management Board, the International Metalworkers' Federation and the Volkswagen employee representation bodies sign a "Labour Relations Charter". It lays down binding minimum standards for the participation rights of employee representation bodies at works level across the global network of plants in relation to decision-making on personnel matters and social affairs, work organisation, remuneration systems, information and communications, education and training, as well as sustainability. The three levels of participation agreed extend from the right to be notified by the company, through the right to consultation, to a right of comprehensive co-determination. The concrete implementation of the Charter will be regulated at the individual locations by mutual agreement between the plant management and employee representatives.

**NOVEMBER 23** The Pacheco plant in Argentina starts production of the Amarok. The 5.25 metre long mid-size pick-up with a 2.52 square metre load surface, initially on offer as a twin-cab model, closes a gap in the Volkswagen product range. Featuring rear-wheel drive and four-wheel drive options and engine outputs of 90 kW/122 hp and 120 kW/163 hp respectively, the truck sets new standards in the pick-up segment. The Amarok incorporating BlueMotion technology uses braking energy recuperation, road resistance-optimised tires and a start-stop system to further save as much as 0.5 litres per 100 km. Prices start from EUR 28,940. The single-cab variant launched in 2011 features a 3.57 square metre load surface which offers plenty of stowage options for hunters, riders, and many other users. The success of the Amarok – with more than 76,965 units produced up to the end of 2011 – results in production also being launched at the Hanover plant in late June 2012. The plan is for its production to serve customers in Europe and Africa, while the Pacheco plant focuses on Latin and South America.

**DECEMBER 7** Pursuant to the previous agreement in principle, Volkswagen Aktiengesellschaft pays 3.9 billion euro to acquire 49.9 percent of the shares in Dr. Ing. h.c. F. Porsche AG.

## LABOUR RELATIONS CHARTER



## AMAROK



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,038,344	6,054,829	135,058	772,872	792,608	453,824

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	64,241
Salaried staff	27,123
Workforce of foreign group companies	195,876
Total	368,500

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	863,635
Abroad	1,189,792
Total	2,053,427

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	47,864
Investments	9,189
Profit	1,082

## 2010

**FEBRUARY 26** The Volkswagen brand's "Think Blue." image and marketing campaign promotes efficient driving and ecological sustainability. Beginning with print ads, and followed up by TV spots, Web specials and e-games, the campaign emphasises the potential savings to be achieved for everyone and spotlights growing environmental awareness. This represents a consolidation of Volkswagen's sustainability-related activities in more than 30 markets aimed at becoming the world's most ecologically sustainable car-maker.

**MARCH 4** The new-generation Sharan has its world premiere at the Geneva Motor Show. This large-size Volkswagen MPV, 4.85 metres long, with up to seven seats, and offering a maximum load capacity of 2,430 litres, also features sliding doors and as many as nine airbags. Its stand-out strengths are variability, spaciousness, comfort and safety. The MPV is solidly built, and generously specified in all but its fuel consumption. The TDI and TSI engines developing up to 125 kW/170 hp of power have been made as much as 21 percent more economical. And the Sharan is the only MPV in its class to offer a four-wheel drive option. Whether as a leisure utility, a family run-around or a tourer – the Sharan offers plenty of space for any use. The Sharan is built at the Setubal plant in Portugal. Its entry-level price is EUR 28,850.

**APRIL 10** The second generation of the Touran, built at the Wolfsburg plant, premieres at the Auto Mobil International motor show in Leipzig. The first-generation Touran sold 1.13 million units, quickly becoming the most popular MPV in Germany. The redesign further enhances the best-seller's existing strengths in terms of spaciousness and variability: A load capacity of 1,989 litres and as many



TOURAN

as 39 different stowage options underscore the model's strong appeal to families. The look of the Touran embodies Volkswagen's design DNA, while the engine range featuring power outputs between 77 kW/105 hp and 125 kW/170 hp is in line with the company's downsizing policy. The Touran is also available with a twin-turbocharged compressed natural gas (CNG) engine. The top-of-the-range 125 kW/170 hp engine comes with the seven-speed dual-clutch direct-shift gearbox (DSG) as standard. Other innovative features include the assistance systems such as the automatic main beam headlight control and the new Park Assist 2.0, which if required can handle longitudinal and parallel parking almost entirely automatically. The entry-level model costs EUR 22,400.

## SHARAN



**APRIL 14** Volkswagen Aktiengesellschaft achieves the largest publicly placed capital increase in the automotive sector to date, raising a net 4.1 billion euro. The issue of almost 65 million new preference shares attracts strong interest from institutional investors especially. Volkswagen enjoys high levels of trust and confidence thanks to its record of sustained success, and is able to establish a sound foundation to implement its medium-term strategy of becoming the world's leading automobile concern according to both economic and ecological measures by 2018.

**JUNE 9** Volkswagen signs contracts with partner FAW-Volkswagen to construct a new plant in Foshan, in the Guangdong region of southern China. With capacity for 300,000 vehicles, and a workforce of some 4,000 people, the plant starts production in 2013. The 520 million euro investment financed by FAW-Volkswagen's cash flow forms part of the Group's long-term growth strategy on the global automotive market.



2010

ADVERTISING FOR THE  
THINK BLUE. MODELS

**AUGUST 9** The Volkswagen Group enhances its design competence by acquiring 90.1 percent of the shares in Italdesign Giugiaro S.p.A. (IDG), Turin, including its name rights and patents. IDG is a design and development company founded in 1968. It has played a key role in shaping the modern face of Volkswagen and Audi models, including the design of the first-generation Golf and the Audi 80 back in the 1970s. Generating annual sales of 100 million euro and with a staff of some 800 people, IDG has also previously worked on the design of the up! model. The framework development contract signed in 2008 had already provided the Volkswagen Group with extensive access to the creativity and design strength of the Italian experts.

**SEPTEMBER 28** The seventh-generation Passat is launched: The saloon and Variant are trend-setters in terms of quality and precision at the Paris Motor Show. The design features straight lines, clearly structured surfaces and dynamic proportions. The stylish Passat is well on the way to maintaining and extending the success represented by its more than 15 million units produced to date. The range of 10 engines, with power outputs extending from 77 kW/105 hp to 220 kW/300 hp, delivers impressive improvements in fuel economy of as much as 19 percent. In fact, its standards of comfort, equipment spec and electronic driver assistance systems are more in line with the luxury class: Features include fatigue detection, dynamic main beam headlight control, adaptive cruise control and an automatic city-driving emergency braking function as well as bi-xenon headlights with daytime running lights and a power-operated panoramic sun roof. The increased range of up to 1,628 km is ideal for lengthy trips, as is the whisper-quiet interior thanks to improved noise insulation. The Passat re-

mains the benchmark in its class in terms of size, while the Variant's intelligent load space system makes it even more variable. Prices for the Passat start at EUR 24,425.

**SEPTEMBER 30** Production of the new Volkswagen Caddy and the Caddy Maxi starts at the Poznań plant. The Poznań facility builds 650 small vans every working day. The fourth-generation Caddy, incorporating a much enhanced package of equipment features and a new front-end design, offers six new TDI and TSI engines developing power outputs between 55 kW/75 hp and 103 kW/140 hp, and delivering fuel savings of as much as 21 percent. A 2.0 litre 80 kW/109 hp liquid petroleum gas (LPG) engine is also available. Prices start at EUR 16,963.95. Its high levels of functionality and low maintenance costs have already brought the Polish-built Caddy 850,000 new owners.

**DECEMBER 21** The agreement with local partner DRB-HICOM to carry out vehicle assembly in Malaysia represents a further expansion of Volkswagen's operations in the ASEAN region. In view of the country's approximately 570,000 new car sales a year, and its even greater future potential, establishing a stronger presence on the Malaysian market is a key element of the company's long-term growth strategy.

## PASSAT



## CADDY



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,100,186	7,357,505	168,019	994,956	828,910	635,556

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	66,672
Salaried staff	28,115
Workforce of foreign group companies	218,053
Total	94,787

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	711,690
Abroad	1,597,958
Total	2,309,648

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	57,243
Investments	12,091
Profit	1,550

## 2011

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**JANUARY 31** Volkswagen Aktiengesellschaft consolidates its Governance, Risk and Compliance functions under the new post of the Chief Compliance Officer, reporting directly to the Chairman of the Management Board.

**MARCH 1** Implementing the agreement in principle signed with Porsche in 2009, Volkswagen Aktiengesellschaft acquires Porsche Holding Salzburg. With a workforce of 20,900 people, Porsche Holding Salzburg in the previous year sold 565,000 new and used cars in Austria, Western and South Eastern Europe and in China, generating revenues of more than 12 billion euro. The new acquisition continues to operate as an autonomous unit, further boosting the Group's sales based on its key strengths of high efficiency and enormous earning power.

**MARCH 17** Volkswagen Osnabrück GmbH starts production of the new Golf Cabriolet, which had been launched at the Geneva Motor Show. Among the four-seater's standard features is an electro-hydraulically powered fabric roof which opens in just 9.5 seconds. Like the Golf, the Cabriolet sets new standards in terms of quality and value. Supreme levels of safety are assured by features including the automatically deploying roll bars, front and side head/thorax airbags, a knee airbag on the driver side, and ESP. The range of six direct-injection turbo engines provide power outputs extending from 77 kW/105 hp to 155 kW/210 hp. The Golf GTI Cabriolet variant available from June 2012 provides fresh-air fans with plenty of performance to accompany their cruising fun. BlueMotion technology keeps the fuel consumption of the Golf Cabriolet 1.6 TDI down to 4.4 litres of diesel per 100 km. Prices for the open-top delights of the Golf start from EUR 23,625. The Osnabrück plant covers a

total area of 426,000 square metres, and has capacity to produce 100,000 vehicles a year. Its focus is on small-volume products such as convertible and roadster models.

**MAY 24** After around two years under construction, Volkswagen's new US plant in Chattanooga, Tennessee is opened. The facility with annual capacity for 150,000 vehicles and employing 2,000 people is focused on production of the Passat. Specially designed for the American market, the model is 4.86 metres long and is marketed at a base price of less than 20,000 Dollars. The plant and the mid-class saloon made by Volkswagen in Chattanooga are key factors in the planned US sales drive. On November 17, 2011, the Passat built in Chattanooga is awarded the title "Best Car of the Year". Thanks to the outstanding popularity of Group models, US sales in 2011 rise by an impressive 23 percent against the previous year to 444,331 units.

**JULY 15** The Puebla plant in Mexico starts production of the Beetle, carrying the emotional heritage of the legendary Volkswagen model into the 21st century. This third generation of Volkswagen's icon, tagged the 21st Century Beetle, echoes the styling of the historic original even more strongly than before. Playful, dynamic and masculine, the characteristic silhouette has been made wider and lower, with completely new proportions. The Beetle exhibits all the styling elements typical of the classic model, embodying the characteristic Volkswagen design DNA. The engine range consists of five petrol units developing power outputs from 77 kW/105 hp to 147 kW/200 hp and two diesels developing 77 kW/105 hp and 103 kW/140 hp respectively. Top speed is 220 km/h and the entry-level price is EUR 16,950.



PASSAT FROM CHATTANOOGA



ADVERTISEMENT FOR THE GOLF CONVERTIBLE



GOLF CONVERTIBLE FROM OSNABRÜCK

CHATTANOOGA PLANT

**SEPTEMBER 15** The world premiere of the up! at the Frankfurt Motor Show marks a new milestone in the small car segment. Built at the Bratislava plant, the 3.54 metre long up! offers plenty of space. The new-style city specialist features ESP as standard and optionally comes with a City Emergency Brake function. Two petrol engines developing 44 kW/60 hp and 55 kW/75 hp respectively and an LPG unit delivering 50 kW/68 hp are available. Available in three equipment lines, the base model is priced at EUR 9,850. AutoCredit<sup>2</sup> finance makes the offer even more attractive. The up! was awarded the 2011 “Golden Steering Wheel” and was named “World Car of the Year 2012”. Since its German market launch in December 2011, it has topped new car registrations in its class. In May 2012 a four-door version of the up! appears on dealers’ forecourts. This marks the advance of Volkswagen’s new model initiative into the smallest segment.

**NOVEMBER 9** Volkswagen Aktiengesellschaft holds 55.90 percent of the voting rights and 53.71 percent of the share capital in MAN SE, providing it with a majority interest. This represents a major step in the company’s strategy of creating a commercial vehicles group comprising MAN, Scania and the Volkswagen Commercial Vehicles brand.



GROUP BRAND MAN

UP!



BEETLE



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,215,058	8,494,280	190,369	1,148,625	913,693	809,549

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	67,088
Salaried staff	30,603
Workforce of foreign group companies	277,105
Total	97,691

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	802,190
Abroad	1,859,137
Total	2,661,327

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	67,178
Investments	12,049
Profit	3,418

2011

## 2012

**JANUARY 6** The Volkswagen Group China and Chinese partners of Shanghai Volkswagen Automotive Co., Ltd. sign a contract to build a new plant in Ningbo, southern China, with annual production capacity for 300,000 vehicles. From 2014 onwards, the facility incorporating a press plant, body shop, paint shop and final assembly line will help boost Volkswagen's production capacities to three million vehicles a year in response to ongoing increases in demand.

**MARCH 11** Expanding its operations in the ASEAN region, the Volkswagen Group Malaysia starts SKD production of the Passat at partner DRB-HICOM's plant in Pekan. The foundation stone is also laid for a new unit at the same location for CKD production of the Volkswagen Jetta and Polo models.

**APRIL 9** Start of production of the Audi A3 marks the Volkswagen Group's launch of the so-called MQB platform for shared modular construction of its transverse-mounted engines. All Group models in segments A0 to B with front transverse-mounted engines will in future be able to utilise a flexible platform combining unified systems, such as configuration of the pedal distance from the centre of the wheel, with co-ordinated variable dimensions. This opens up the possibility to build volume and niche models of top quality, tailored to the needs of a wide variety of markets, at competitive cost. Vehicles with different wheelbases and track widths can be built on the same line, enabling shared production of different brand models. The MQB platform complements Audi's MLB modular system for longitudinally-mounted engines and Porsche's MSB modular standard drive train platform, as well as co-ordinating with the Group's most compact model series designated the New Small Family.



NEW LAVIDA

**APRIL 23** The New Lavalida A-segment notchback saloon built by Shanghai Volkswagen makes its debut at the Auto China show. Incorporating three engine variants and four equipment lines, the model is closely tailored to the needs of Chinese customers. It features state-of-the-art technology, timeless design, generous amounts of space and high levels of workmanship, and offers outstanding value for money.

**JUNE 6** Volkswagen Aktiengesellschaft increases its share of the voting rights in MAN SE to 75.03 percent, advancing its strategy of establishing an integrated commercial vehicles group. MAN becomes a Group brand alongside Scania and Volkswagen Commercial Vehicles, forming part of the main board Commercial Vehicles portfolio.

**JULY 19** The acquisition of 100 percent of the shares in Bologna-based Ducati Motor Holding S.p.A. by AUDI AG

## GOLF



subsidiary Automobili Lamborghini S.p.A. brings into the Volkswagen Group an Italian motorcycle name renowned worldwide for its sporty models.

**JULY 26** Shanghai Volkswagen opens its new plant in Yizheng, eastern China, designed to produce 300,000 vehicles a year with a workforce of 3,700 people. The facility is a leader in environmental sustainability, including a paint shop conforming to the very highest ecological standards and use of geothermal energy to heat and cool the factory areas. Solar plants are also installed to provide resource-friendly power for equipment such as forklifts.

**AUGUST 1** The transfer into Volkswagen Aktiengesellschaft of the 50.1 percent share in Dr. Ing. h.c. F. Porsche AG held indirectly by Porsche SE creates an integrated automobile concern combining Volkswagen and Porsche. Through an intermediate holding company, Volkswagen thus owns 100 percent of the shares in Porsche AG, which it is operating as an independent Group brand.

## GROUP BRANDS DUCATI AND PORSCHE



**PORSCHE**

**AUGUST 28** The contracts for the construction of an engine plant at Kaluga in Russia are signed in Moscow. Representing an investment of some 250 million euro, the facility is scheduled for completion by 2015. It will have capacity to produce 150,000 units a year of the EA 211 engine generation. The foundation stone for the new plant was laid on December 11, 2012.

**AUGUST 31** In Tianjin, China, the foundation stone is laid for a gearbox plant with capacity to produce 450,000 units a year. The new plant, in which 230 million euro is being invested, will further expand the Group's production network in China. Launching production in late 2014, it will create 1,500 new jobs.

**SEPTEMBER 1** Volkswagen carries out an extensive organisational and personnel restructuring as part of its Strategy 2018. Reflecting the economic significance of the market, a new "China" portfolio is added to the Group Management Board functions. The Commercial Vehicles

division is assigned to oversee the expansion of the commercial vehicles business, enhancing synergies between the MAN, Scania and Volkswagen Commercial Vehicles brands and maximising growth potential.

**SEPTEMBER 4** The seventh-generation Golf has its world premiere in Berlin. Impressive new features of the class-leading compact include lighter weight, improved fuel economy and reduced emissions allied to even more enhanced levels of comfort and safety. The car was awarded the top five-star rating in NCAP (European New Car Assessment Programme) crash testing. The new Golf's engineering is based on the MQB modular platform for transverse-mounted engines. Initially, four TSI and two TDI engines are available, with power outputs between 63 kW/85 hp and 110 kW/150 hp. The new Volkswagen quickly becomes a hit thanks to its wide range of high-end features, including extensive driver assistance systems, state-of-the-art engine technology, incorporating a start-stop system and an energy recuperation mode, as well as its supremely elegant design. Prices start from EUR 16,975. It is launched onto the German market on November 7th.

**OCTOBER 30** The new Santana built by Shanghai Volkswagen debuts in Wolfsburg, where the first generation of the model was launched 31 years ago. Since being transferred to China in 1982, it has enjoyed massive success, selling almost four million units. The latest version of the notchback saloon features a clearly defined, precise design, intelligent use of space, with plenty of leg room in the rear and a large luggage capacity, high levels of safety and comfort, as well as an exclusive look. It has all the attributes needed to maintain its leading position on the Chinese market.

**NOVEMBER 28** The Los Angeles Auto Show provides the new Beetle Cabriolet with the perfect stage to show off its iconic qualities. Bigger, more powerful, more assured and more economical than its predecessors, featuring a roof which opens in just 9.5 seconds and with engine performance extending up to the top-of-the-range 147 kW/200 hp unit, the Cabriolet embodies the perfect mix of sportiness and style.

**NOVEMBER 30** In Munich, the Group Management Board, the employee representatives of Volkswagen Aktiengesellschaft and the international trade union federation IndustriAll Global Union sign the "Temporary Work Charter for the Volkswagen Group", laying down the basic principles of temporary working and stipulating appropriate employment conditions and pay. It states that temporary work is to be deployed only in moderation as a flexible means of balancing out fluctuations in the economic cycle and to handle specific tasks. At the same time, however, temporary working opens the way for a transition to full employment with Volkswagen. Temporary staff are to be offered training in order to obtain qualifications which will bring them more closely into line with the permanent workforce.

**DECEMBER 6** Following the contract manufacture agreement concluded in June 2011 with Russian car-maker GAZ in Nizhny Novgorod, CKD production of the Škoda Yeti is begun. The facility has already been producing for the Russian market on a SKD basis since late 2011. The Volkswagen Jetta and Škoda Octavia models are also being built at the same location, in order to exploit growth opportunities on the Russian market as part of the Group's Strategy 2018. The Ukraine crisis and the subsequent downturn in demand prevent sales growth from 2014 onwards.



## BEETLE CONVERTIBLE



## SANTANA



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat	Golf	Polo
1,148,774	9,255,384	183,577	1,309,618	825,591	711,519

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	68,064
Salaried staff	33,730
Workforce of foreign group companies	300,293
Total	101,794
	549,763

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	772,796
Abroad	1,807,470
Total	2,580,266
	9,344,559

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	68,361
Investments	12,152
Profit	6,380
	21,884



## 2013

**15 JANUARY** The opening of the engine plant at Silao in central Mexico marks the launch of the 100th manufacturing location in the Group's history. Designed for an annual capacity of 330,000 engines and with a workforce of more than 700 people, the facility will supply Volkswagen's North American vehicle plants in Puebla and Chattanooga with state-of-the-art, fuel-efficient TSI engines of the EA 888 series. The investment in the new plant totals 550 million US Dollars.

**16 MAY** Aiming to increase production capacity in China to four million vehicles a year by 2018, Volkswagen signs an agreement with its Chinese joint venture partner Shanghai-Volkswagen to construct a vehicle plant at Changsha in southern China, with the first ground being broken on the very same day. Designed to build 300,000 vehicles a year and scheduled to start production by the end of 2015, the new plant will incorporate all the facilities for complete automobile manufacture, including a press shop, body shop, paint shop, and final assembly line. The new factory will implement the principles of resource-conserving production in line with the "Think Blue. Factory." strategy aimed at cutting emissions and reducing energy and water consumption.

**27 MAY** Volkswagen and Philippine corporation Automobile Central Enterprise, Inc. sign an import agreement for Volkswagen brand cars in Hong Kong. Volkswagen is looking to build on the earlier successes of the Beetle and the Transporter in the Philippines in order to boost its operations in the ASEAN region. Working with the importer – a subsidiary of the Ayala Corporation – Volkswagen brings various models to market and expands its service network.



GOLF VARIANT

**16 AUGUST** The new engine plant of FAW Engine (Dalian) Co., Ltd. in Changchun starts production. Covering an area of 94,000 square metres, the plant will manufacture 1.8 and 2.0 litre engines of the EA-888 series. It will initially provide capacity for up to 300,000 units a year, ultimately building to 450,000 with effect from mid-2014. The engines will be fitted in Volkswagen and Audi cars manufactured in China, and are the first on the Chinese market to conform to the Euro 6 standard.

**19 AUGUST** The launch of the Golf Variant extends the company's offering in the Golf class. At a total length of 4.562 metres, the dynamic and sporty vehicle provides luggage compartment space of between 605 and 1,620 litres – "room for everything", as the slogan goes. The panoramic sun roof allows lots of light to flood into the comfortable interior. The range of five petrol and diesel engines provide power outputs between 63 kW/85 hp and 110 kW/150 hp. The Golf Variant

E-GOLF IN FRANKFURT AM MAIN



TDI BlueMotion Technology consumes just 3.9 litres of diesel per 100 kilometres on average. Prices start from EUR 18,900.

**29 AUGUST** The opening of the Urumqi vehicle plant in the Xinjiang region of western China underscores the growth trend on the Chinese market. The plant begins its operations with SKD (Semi-Knocked-Down) assembly of the Santana. After the launch of the paint shop and body shop in 2014, annual production capacity rises to 50,000 vehicles.

**12 SEPTEMBER** At the Frankfurt International Motor Show (IAA), Volkswagen electrifies visitors with its e-Golf and e-up! models. The e-Golf provides all-electric mobility in the customary high-grade, highly functional Golf environment. The e-up! four-seater city specialist also on show at the event is the most economical all-electric Volkswagen, setting new standards of efficiency. A standard feature in

ENGINE TEST RIG AT THE CHANGCHUN PLANT



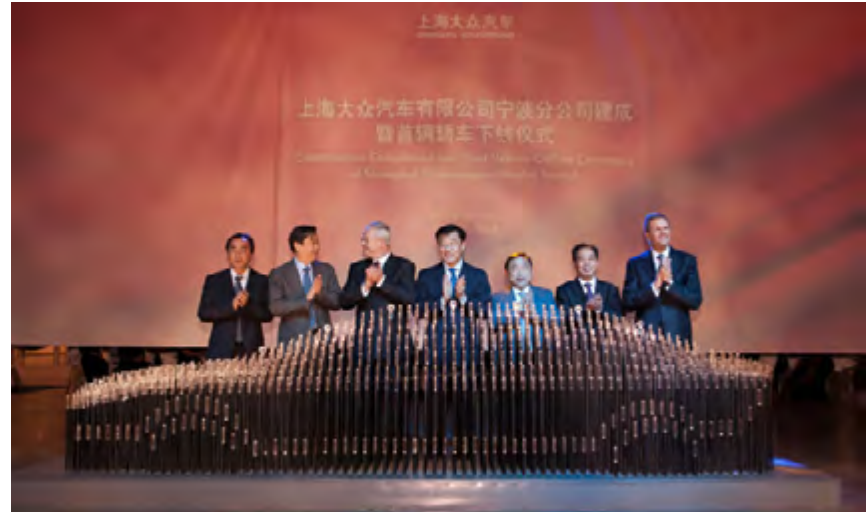
the e-up! is a navigation and information system based on dedicated e-specific software. Volkswagen has thus brought zero-emission power train systems to the mass-production market, offering all relevant categories of drive within its vehicle range.

**25 SEPTEMBER** FAW-Volkswagen's new vehicle plant at Foshan in southern China is opened. The first product to roll off its assembly line is the seventh-generation Golf, locally sourced for the Chinese market. The plant offers annual production capacity for 300,000 units, and within the first year its workforce rises to 4,500. In 2014 it also starts building the Audi A3 Saloon and the Audi A3 Sportback. Thanks to its almost complete recycling of waste water, its high levels of material recycling and its use of solar power, the Foshan plant sets new eco-friendly standards for car-making facilities in China.

**22 OCTOBER** The European Court of Justice affirms the conformity of the 2007 amendment to Germany's so-called "Volkswagen Law" governing shareholders' voting rights, finding that the valid blocking minority does not represent an infringement of European Union law. The Articles of Association of Volkswagen Aktiengesellschaft also stipulate an 80 percent majority vote for decision-making at the company's Annual General Meeting.

**24 OCTOBER** The newly opened plant at Ningbo in south-eastern China starts production of the Škoda Superb. The following year it also starts building the Škoda Octavia, as well as the Volkswagen Lamando – a Jetta modified for the needs of the Chinese market. The Shanghai-Volkswagen plant is the Volkswagen Group's sixteenth in China. Designed to produce 300,000 vehicles a year, initially with a workforce of some 2,300, it has its own press shop, body shop, paint shop and final assembly line, outputting Volkswagen and Škoda brand cars.

**22 NOVEMBER** Volkswagen Slovakia launches a new press shop at its Bratislava plant. A 90 million euro investment extends the manufacturing depth at the location. At the heart of the 24,000 square metre press shop facility is the press itself, the biggest in the entire Group, with a force of 91,000 kilonewtons. Designed to execute 13,000 strokes a day, the new press shop will make side panels, bonnets, tailgates, roofs, wings and doors.



OPENING CEREMONY AT THE NINGBO PLANT

**19 DECEMBER** The new plastics paint shop is opened in shed 53b at the Wolfsburg plant. The facility employs 120 staff painting as many as 4,000 bumpers and other plastic components a day in customer-specified colours. It reduces energy consumption by almost a half and cuts emissions from the painting process by 90 percent. The plastics paint shop is part of the strategy to attain the goals of the "Think Blue. Factory." programme, which will cut energy and water consumption as well as emissions from the production process by 25 percent by 2018.

PRESS PLANT IN BRATISLAVA

PLASTIC COMPONENTS PAINT SHOP  
AT THE WOLFSBURG PLANT

## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat/CC	Golf	Polo
1,169,151	9,727,848	176,913	651,027	824,629	725,291

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

Volkswagen Aktiengesellschaft	Group
Wage-earners	69,952
Salaried staff	37,607
Workforce of foreign group companies	312,351
Total	107,559
	572,800

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	736,677
Abroad	1,759,068
Total	2,495,745
	9,728,250

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	65,587
Investments	2,502
Profit	3,078
	197,007
	14,936
	9,145

## 2014

**5 FEBRUARY** At the Auto Expo in New-Delhi, Volkswagen presents its enhanced Taigun concept, a four-seater compact SUV. Just 3.86 metres long, the cross-over model combines a spacious interior with efficient three-cylinder engines developing up to 81 kW/110 hp. The outside-mounted spare wheel and the panelling on the side sills, wheel housings and bumpers underscore its robust character. Youthful colours aim to make the low-cost entry-level model even more appealing.

**7 MARCH** Production of the e-Golf starts in Wolfsburg. The first car to roll off the line is coloured Oryx white. Based on the modular transverse mounting kit, the e-Golf can be built on the same line as the established Golf. The four-door model develops a maximum torque of 270 Nm from a standing start. With a range of 130 to 190 km, the 85 kW/115 hp electric motor offers a maximum torque of 270 Nm, guaranteeing efficiency and agility. Power costs are EUR 3.28 per 100 kilometres, thanks to consumption of just 12.7 kW per 100 km – a ground-breaking low in the compact class. The electric car accelerates to 100 km/h in 10.4 seconds. Under the bonnet, the e-Golf is very different from its petrol and diesel engined counterparts. Externally, it is identifiable by special signature lighting, with full-LED headlights. Its price starts from EUR 34,900.

**30 MAY** The Golf Sportsvan is launched onto the market. The compact MPV features outstanding levels of spaciousness and comfort. The variable luggage compartment has a 1,520 litre capacity. The fold-down front passenger's seat enables items up to 2.40 metres in length to be carried. Available in six engine variants, including four TSI and two TDI units developing power outputs between 63 kW/85 hp and 110 kW/150 hp, the new model also benefits from a



TAIGUN STUDY

raised seat position providing better all-round visibility. The Golf Sportsvan incorporates state-of-the-art technologies, including the start-stop system as standard, as well as optional innovative assistance systems such as Lane Assist or Rear Traffic Alert. Its base price is EUR 19,625.

**19 JUNE** The opening of the newly constructed "E-Campus" competence centre for electrical and electronic engineering bundles the key development functions for vehicle electromobility and connectivity. The futuristic eight-storey building, covering a total area of 42,900 square metres, symbolises the rapid advance towards the digital connectivity, infotainment and driver assistance systems of the future.

**3 JULY** The new Passat celebrates its world premiere at the Volkswagen Design Center in Potsdam. The new model strikingly features a lower body shape, a longer wheelbase accompanied by larger wheels, and much more dynamically styled proportions. The eighth generation of the successful



## START OF PRODUCTION OF THE e-GOLF



mid-class model – available as a saloon, an estate, and subsequently also as the Alltrack variant – is offered in a range of 10 direct-injection petrol and turbo-diesel engines with power outputs between 88 kW/122 hp and 206 kW/280 hp, all conforming to the Euro 6 emissions standard. A new era for the Passat is embodied in state-of-the-art technologies such as the Active Info Display digital instrument cluster and the Front Assist feature with city emergency braking function and pedestrian recognition. The entry-level model costs EUR 30,250.

**7 JULY** The Volkswagen Group concludes an agreement with its Chinese joint venture partner First Automobile Works to expand production capacities. A total of two billion euro is invested in two vehicle plants, at Qingdao in the east-coast province of Shandong and in Tianjin.

**14 JULY** In response to high demand, starting in Summer 2015 the Porsche Cayenne is also built at the Volkswagen

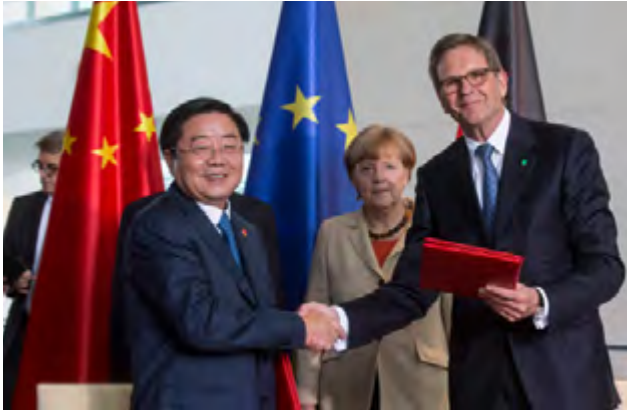
## MIDSIZE SUV STUDY



plant in Osnabrück. The decision entails a 25 million euro investment, creating capacity to assemble 20,000 vehicles a year.

**14 JULY** Volkswagen Group America announces its decision to produce the new Volkswagen mid-size SUV in Chattanooga. The model is scheduled to go into production in late 2016, and is targeted at the growing SUV market. Investment of around 900 million Dollars creates 2,000 new jobs.

**10 OCTOBER** The Volkswagen Group extends its joint venture agreement with Chinese partner First Automotive Works by a further 25 years, until 2041, in order to build on successful operations in China over the long term. At the same time, an agreement is concluded with the SAIC Motor Corporation to construct a test centre and proving ground for models of the joint venture Shanghai-Volkswagen close to the Urumqi plant opened in 2013.



EXTENSION OF THE JOINT VENTURE AGREEMENT

**4 NOVEMBER** The Tianjin component plant starts production of DQ380 dual-clutch transmissions. The plant in the north will initially have capacity to produce 450,000 transmissions a year, rising to 1.2 million units from 2016 onwards. It will then employ 5,500 people.

**13 NOVEMBER** At Września in Poland, the foundation stone is laid for the new Volkswagen Commercial Vehicles plant scheduled to open in 2016. With annual capacity for 100,000 vehicles, and incorporating a state-of-the-art paint shop, body shop and vehicle assembly sheds, as well as a supplier park, a workforce of up to 3,000 people will be employed on production of the new generation of the Volkswagen Crafter.



LAYING THE FOUNDATIONS OF THE CRAFTER PLANT IN POLAND

**5 DECEMBER** With the market launch of the Golf GTE, Volkswagen extends its product range with its first plug-in hybrid model, powered by a 1.4 litre TSI engine developing 110 kW/150 hp and a 75 kW/102 hp electric motor. The Golf GTE emits just 36 grams of CO<sub>2</sub> per km (NEDC) and, with a total range of 940 km, can operate in electric-only mode for up to 50 km.



## TIANJIN COMPONENT PLAN



## GOLF GTE



## VEHICLE PRODUCTION

Volkswagen Aktiengesellschaft	Group	T5	Passat/Magotan	Golf	Polo
1,230,891	10,212,562	178,283	747,583	1,011,124	753,754

## PRODUCTION OF SELECTED MODELS

## WORKFORCE

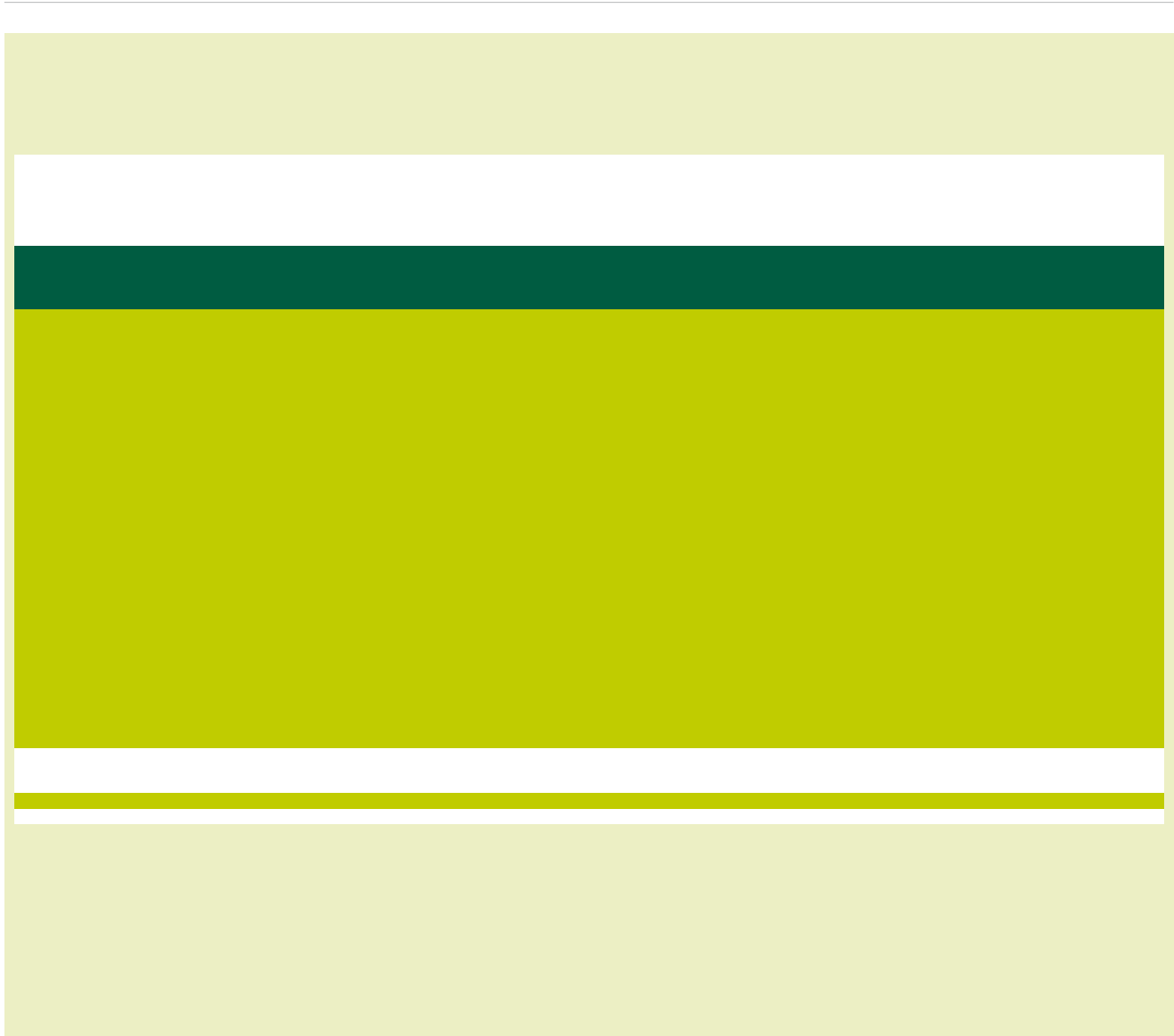
Volkswagen Aktiengesellschaft	Group
Wage-earners	73,783
Salaried staff	38,778
Workforce of foreign group companies	
Total	112,561
	592,586

## VEHICLE SALES

Volkswagen Aktiengesellschaft	Group
Germany	803,008
Abroad	1,812,678
Total	2,615,686
	10,217,003

## FINANCIAL DATA (IN MILLION EUR)

Volkswagen Aktiengesellschaft	Group
Sales revenue	68,971
Investments	2,804
Profit	2,476
	11,068



# The Brands



## Audi

The development of a multi-brand group was not yet part of Volkswagen's plans when it began negotiating to acquire Auto Union GmbH in 1964. It was interested in the Daimler-Benz subsidiary for different reasons: As car production at the Wolfsburg plant was nearing its capacity limits, Volkswagen was mainly looking to acquire the factory in Ingolstadt with its annual capacity of 100,000 vehicles, its highly skilled workforce, and its sales and service organisation including more than 1,200 dealers and workshops. An added bonus was the fact that the takeover would eliminate a direct competitor. The acquisition package included the licence for the medium-pressure engine, which Daimler-Benz had developed almost to the point where it was ready for production with a view to converting the model range produced at Ingolstadt from two-stroke to four-stroke power. The 1.7-litre engine was seen as a technical innovation from which Volkswagen expected to gain a competitive edge. A study prepared for the Board of Management also stressed the option of positioning a vehicle based on the F 102 under the Audi brand name as a "European" alternative to the US models which predominated in the mid-range segment.

Facing stiffer competition as Ford and Opel penetrated the upper mid-range segment, Daimler-Benz decided to concentrate its financial resources on defending its market position. By disposing of Auto Union, which had recorded a significant loss in 1964, Daimler-Benz obtained some DM 310 million for further investments as well as avoiding future losses. The move was made all the easier in view of the fundamental differences of opinion concerning two-stroke engines between the Stuttgart parent company and its Ingolstadt-based subsidiary.

On January 1, 1965, Volkswagenwerk AG initially acquired a stake of 50.3 percent, giving it effective control over Auto Union, which then became a wholly owned subsidiary of Volkswagen in 1966. While the market split agreed between Volkswagen and Daimler Benz was in line with the strategic priorities of both concerns, wider co-operation plans ultimately failed as a result of their divergent interests. At any rate, the new brand with the four rings as its symbol was to bring far-reaching changes to the profile of the emergent Volkswagen Group.



INGOLSTADT PLANT



THE FOUR AUTO UNION BRANDS

Founded on September 3, 1949 in Ingolstadt, Auto Union GmbH was a young company built on a long history of automobile production stretching back to the 19th century. August Horch had established A. Horch & Cie. in Cologne on November 14, 1899. In 1904, the company was converted into a joint stock corporation and its headquarters were relocated to Zwickau. Following a dispute with the Supervisory Board, in 1909 the renowned designer August Horch left the business and founded a new company, August Horch Automobilwerke GmbH. Renamed Audi Automobilwerke GmbH in 1910, its Zwickau factory saw the first Audi roll off the production line in the same year. During the era of the Weimar Republic the small business grew into a brand with an international reputation. In the wake of the Great



DKW MOTORCYCLE

Depression, the two companies Horch and Audi faced severe financial problems, and united with two other car manufacturers in Saxony to form the Chemnitz-based Auto Union AG. The combined company's four interlocking rings logo symbolised their union. On June 29, 1932, the DKW producer Zschopauer Motorenwerke J. S. Rasmussen AG, Horchwerke AG and Audi Werke AG all joined forces. The fourth brand was the automobile segment of Wanderer-Werke AG, which was integrated into Auto Union by a sale and lease contract. As the second-largest German automaker, Auto Union covered almost the entire market spectrum with a variety of model ranges in the 1930s. DKW was positioned in the lower mid-size segment, and in 1937 once again became the world's largest motorcycle manufacturer with annual production of almost 60,000 units.

FINAL ASSEMBLY AT THE DÜSSELDORF PLANT



Audi and Wanderer both served the upper mid-range segment of the market, also making motor racing history under the Auto Union name. Horch resumed its leading position in the luxury segment. The centralisation of research and development work in 1936/37 not only served to pool the innovation embodied in a large number of patents; its main aim was to cut costs by rationalising production. The heightened efforts to standardise body styles, chassis, engines and gearboxes created a characteristic Auto Union profile from the various model ranges which had co-existed up to that point. In the last year before the Second World War, Auto Union had a workforce of about 23,000 and produced more than 67,000 cars and 59,000 motorcycles. The company had already become a key supplier to the armed forces and government authorities and – like other automotive companies – was integrated into the National Socialist regime’s armaments industry and forced labour system once the war began.

PRESENTATION OF THE NEW AUDI



Following the capitulation of the German Reich, the Auto Union plants located in the Soviet occupation zone were dismantled and in 1948 the military government decreed that the company was to be expropriated. The seedbed for the new start in West Germany was a parts warehouse which had been relocated to Ingolstadt in 1945. The company, called “Zentraldepot für Auto Union Ersatzteile Ingolstadt GmbH”, which had been founded to manage the warehouse in December 1945 rapidly expanded. The first vans rolled off the production line in time for the Hanover Industrial Fair in the Spring of 1949, and on September 3, 1949 Auto Union GmbH was refounded by former senior executives of the predecessor Auto Union AG.

Up until 1965, it was the DKW brand, which had gained a high profile as a pioneer of front-wheel drive with the F1 introduced in 1931, that dictated the company’s engineering base and model range. Car production started at the new



PIONEER WITH A WANKEL ENGINE: THE RO 80



plant in Düsseldorf in 1950 with the F 89 P model, known as the “Meisterklasse” (Masterclass), while the motor-cycle range, which was continually expanded up until 1954, played a key role in the development of individual mobility in West Germany. The renaissance of the two-stroke engine in the post-war era boosted demand for the products of the Ingolstadt manufacturer. Auto Union was therefore an attractive prospect when Daimler-Benz acquired the company in April 1958 to make up the bottom end of its model portfolio. However, by the early 1960s it was becoming increasingly clear that Auto Union would not be able to attract new customer groups with its relatively expensive two-stroke models. Sales of the F 102, launched in spring 1964, lagged far behind expectations. Auto Union had become isolated on the market by persisting with its traditional engineering.

Under the umbrella of the Volkswagen Group, the new subsidiary successfully completed the difficult transition

THE PRECURSOR TO THE POLO: THE AUDI 50



from two-stroke to four-stroke engines. From May 1965, the Beetle was also produced at Ingolstadt, closing the gap caused by the loss of two-stroke models. At the Frankfurt International Motor Show in September 1965, Auto Union presented its first four-stroke model. The new car, developed from the F 102 and powered by a medium-pressure engine, appeared under the Audi name and heralded the renaissance of the brand. In 1966, the model range was completed by the Audi Variant, Audi 60 and Audi Super 90. These new models ensured that Auto Union returned to profit following its losses the previous year, and also stabilised the shrinking sales network. However, it was only the Audi 100, launched in 1968 and successfully taking the company into the upper mid-size segment, that finally secured the position of Audi as an independent brand. The investment programme initiated in 1969 to expand production capacity and build up independent engineering capabilities at Ingolstadt underpinned the position attained by the company.



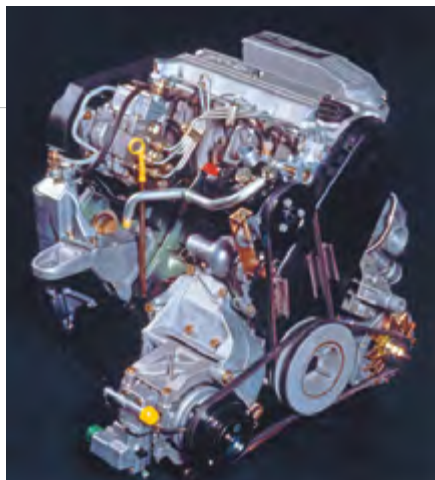
The merger with NSU Motorenwerke AG to form the Neckarsulm-based Audi NSU Auto Union AG, which took effect retrospectively from January 1, 1969, added a further brand to the Volkswagen Group. Volkswagen was more interested in NSU's engineering expertise and its range of small cars complementing the Audi model range than in the Wankel engine itself, which the Wolfsburg top management did not believe was a solution with a future. In fact, both the engineering and the styling of the Ro 80, which had been produced by NSU from 1967, were ahead of their time. But the rotary engine and the aerodynamic body meant that the futuristic model designed by Claus Luthe was out of step with the mainstream.

When production was discontinued in March 1977, the NSU brand was consigned to the history books. In commercial terms, Volkswagen's expectations had not been fulfilled. On the other hand, the Wolfsburg group benefited from synergy effects within the brand network which helped create the new Volkswagen generation and led to the breakthrough of the modular component kit principle. The first Volkswagen with front-wheel drive and a water-cooled engine, the K 70 launched in 1970, had originally been an NSU design. The fastback Passat originated from the new Audi 80, and the Polo from the identically designed Audi 50. Furthermore, revenue from the sales of successful and more profitable Audi models helped compensate for falling sales volumes and revenues as the end of the Beetle era approached and Volkswagen made the transition to a modern product portfolio. From 1969 to 1973, Audi continually expanded its sales on domestic and export markets, especially in the USA, before the oil price crisis channelled consumer demand to vehicles with greater fuel economy.



GUARANTEED RUST-FREE –  
FULLY GALVANISED BODY OF THE AUDI 80

The Audi 200, launched in 1979, heralded the start of Audi's long climb to success in the luxury segment. Audi established its technological edge embodied in the famous "Vorsprung durch Technik" slogan with four-wheel drive, which made its debut in the Audi quattro in 1980 and became available throughout the model range four years later. Four-wheel drive broke new ground in the international automotive industry, as well as in rallying, where Audi was able to build on its past successes. Audi celebrated its greatest triumphs in 1984, winning the world rally championship for manufacturers and taking the first three places in the Monte Carlo Rally. These victories boosted the image of the brand and underscored the company's innovative power. In addition to its motorsport success, Audi's business in general was on the up through the 1980s, and that trend was reflected in high levels of capital investment. Investments reached a peak of almost a billion Deutschmarks in 1985, when the company was renamed Audi AG and its headquarters returned to Ingolstadt.



START OF THE TDI ERA

The start of production of the new Audi 80 accounted for much of the investment in the restructuring of manufacturing operations. This new model appeared in 1986, featuring a fully galvanised body offering optimal protection against corrosion and loss of value just like the two larger Audi models. The considerable investment made by the company certainly paid off. It was mainly thanks to the success of the Audi 80/90 series that sales exceeded the 400,000 vehicle mark for the first time in 1987. The top-of-the-range model was the premium-class V8 launched in 1988. The company's position was reinforced by a new generation of five-cylinder engines developed at the Neckarsulm plant. Heralding a new era in diesel technology under the acronym "TDI", they made their debut in the Audi 100 in September 1989. The sales boom following German reunification led to a record year for Audi in 1991, with sales reaching 451,000 vehicles before the world economic crisis of 1993 curtailed sales and profits.



ASSEMBLY OF THE TT IN GYÖR

The globalisation of the Volkswagen Group in the 1990s provided the framework for the international growth of Audi AG. In April 1993, Audi Hungaria Motor Kft. was established in Győr, Hungary, to operate an assembly and engine plant. The Audi TT has been assembled at the plant since 1998. This development was followed by Audi do Brasil e CIA. in 1997; production of the Audi A3 at the Curitiba plant constructed jointly with the Brazilian Volkswagen subsidiary started in mid-1999. And in 1998, Audi acquired a fitting addition to its portfolio in the shape of legendary sports car manufacturer Lamborghini.

By 1999, Audi AG was a group with a workforce of 45,800, selling 626,000 cars and reporting profit for the year of DM 324 million. This success was the result of the cost benefits associated with increasingly lean production, networking with system suppliers and high levels of acceptance of the product range introduced in 1994. The Audi A4 in particular became a best-selling model and a driver of growth,



A8 HYBRID

while the A8 – the Audi flagship with its aluminium body – symbolised the company’s pioneering role in light-weight design and strengthened its position in the luxury segment. The Volkswagen Group Board of Management acknowledged this development by instigating a clearer separation between the Volkswagen and Audi brands in 1995, after having already transferred sales responsibility for Audi vehicles to Ingolstadt with effect from January 1, 1993. Product marketing and the sales strategy were now exclusively tailored to the brand’s premium image.

The Audi success story continued in the new millennium. In 2003, Audi reported profit of 811 million euro, making it the most profitable Group brand. Almost half the vehicles produced in 2003 were A4s, though by 2008 that model’s share of overall production had fallen to just over a third in the course of product diversification. Among the key new models are the Q7 luxury SUV and the R8 super sports car built in Neckarsulm. Going into production in 2006, the two models established strong footholds in new market segments. The Audi A5, launched in 2007, sold over 57,000 units in its first full year on the market. In 2008, the premium brand strengthened its presence in the SUV segment with the Audi Q5, as well as introducing a convertible version of the Audi A3. The extension of the model range was accompanied by expansion of manufacturing capacities outside of Germany. This paved the way for the company to achieve sustained growth.

The former Volkswagen plant in Brussels was integrated into the Audi production network in May 2007. It initially built the Audi A3, though today it is the A1 model which is rolling off its production line. In 2008, the Škoda plant at Aurangabad in India began CKD assembly of the Audi A6 and Audi A4. Today the plant builds the Audi A3, A4, A6, Q3, Q5 and Q7.

In China, Audi holds a 10 percent share in the joint venture FAW-Volkswagen Automotive Company Ltd., helping to expand the premium car-maker’s production capacities still further. Audi recognised the strategic importance of the Chinese market at an early stage, and builds its A3, A4, A6, Q3 and Q5 models locally. Audi sold 529,000 units in China in 2014, leading the premium market.

The major increase in sales, which had surpassed the million units level for the first time in 2008 and by 2014 had climbed to 1,744 million, resulted primarily from the introduction of the Q5 and Q3 in the SUV segment and the A1, launched in 2010, which enabled Audi to conquer the premium compact segment. In addition, Audi consistently added to its product portfolio with new variants, refreshed its existing model series by launching new generations, and regularly upgraded the technical features of the individual models. The premium quality standards and design features are perfectly in line with customers' tastes, further boosting the company's success. Sales revenues rose from 34.2 billion euro in 2008 to a new record high of 53.7 billion euro in 2014, while operating profit improved from 3.7 to 5.1 billion euro.

With its global brand strategy, the premium manufacturer is well equipped to tap the growth potential of world markets in the future. Since the reintroduction of the Audi brand, the former two-stroke producer has become a respected technology leader in the international automotive industry. Highly profitable, a leading innovator and strongly positioned on all volume markets with top-class products, Audi enjoys an outstanding position within the Volkswagen brand alliance, and its significance for the future of the Volkswagen Group cannot be overstated.



A1



PRODUCTION IN CHANGCHUN

## Bentley

The Bentley brand had been the driving force in the growth of Rolls Royce Motor Cars for a decade when the Vickers Group put the chronically underfunded producer of luxury automobiles up for sale in October 1997. The royal carmaker was ideal for the development of a luxury segment under the Volkswagen Group umbrella: Bentley supplied the sporty and luxurious model range and Rolls Royce the illustrious name. In March 1998, it became clear that Volkswagen could not have both. On July 3, 1998 the Wolfsburg manufacturer acquired the Bentley brand, the factory in Crewe and the right to use the Rolls Royce brand name until the end of 2002. Volkswagen's brand policy had been mainly focussed on Bentley cars from the outset. By its acquisition, the Volkswagen Group made a successful entry into the luxury segment. Rolls Royce and Bentley once again went their separate ways after 2003, resuming the tradition started in the early days of their history, when the two companies had been competitors.

Walter Owen Bentley established Bentley Motors in London on January 20, 1919. Six months later, the company was wound up in the course of a financial restructuring and refounded under the same name. Bentley had a passion for engines and speed. He had established a reputation as a fine engineer by developing two aircraft engines in World War I before his 3-litre Bentley prototype attracted attention at the London Motor Show in November 1919. The remarkably uncomplicated vehicle's handling, performance and braking qualities were ground-breaking, and it featured a newly designed 4-cylinder engine which could take the car to the then magical speed of 100 miles per hour. The first mass production vehicle, delivered to its owner in September 1921, was made in a small factory established by Bentley at Cricklewood in North London. Almost 150 cars had been assembled there by 1922, while production costs multiplied as sales grew. At this point it became apparent that



SIGNING OF THE TAKEOVER CONTRACT





WALTER OWEN BENTLEY

the engineering expertise of Bentley, the visionary, was not matched by his business acumen. In 1924, despite financial difficulties, he began to develop a 6.5 litre model intended as his masterpiece. Two years later, the luxurious model was ready for production but the company was bankrupt. The millionaire businessman and car enthusiast Woolf Barnato came to the rescue and took over the company, with W.O. Bentley retained as Managing Director. Following a brief revival – which, in 1929, saw Bentley Motors record its first and only profit – the Great Depression, poor cost awareness on the part of management and the development of the 8-litre Bentley once again drove the company to bankruptcy in July 1931.



PRODUCTION OF THE MK VI IN CRICKLEWOOD

The Rolls Royce Motor Corporation seized the opportunity to take over its fiercest competitor in November 1931. During the 1930s, the company followed the general trend towards Fordist production methods in order to reduce production costs. Standardised components were increasingly used on the two product lines, sacrificing traditional Bentley characteristics such as performance and dynamism. Instead, the brand benefited from refined workmanship and was able to survive through troubled times. The brand initially maintained a degree of independence, as up to the Second World War Bentley engines and chassis were not used in Rolls Royce models.

It was only due to financial pressures in the post-war era that the British manufacturer began making model policy changes that constrained the Bentley brand. The MKVI, built at the new factory in Crewe from 1946, was forced off the market in 1951 by the virtually identical Rolls Royce Silver Dawn. A final highlight was the Type R Continental coupe, produced from 1952 to 1955. Over the following three decades, Bentley lost its independent profile, producing only derivatives of the corresponding Rolls Royce models. As a result, the Bentley marque became less and less important.

In 1980, the situation changed dramatically. The armaments group Vickers plc acquired Rolls Royce Motor Cars Ltd. and recognised the potential of the Bentley brand, breathing new life into it with the Bentley Mulsanne Turbo. There was only one key difference between this model, introduced in 1982, and the Rolls Royce Silver Spirit: a turbo-charger boosting power output by 50 percent to 300 horsepower. What was at the time the fastest Bentley ever initiated a renaissance of the brand. It was followed in 1984 by the Bentley Eight, intended to compete with Mercedes and BMW models, and in 1985 by the Mulsanne Turbo R, heralding the dawn of a new model era. The product range expanded, and a return to the sporting tradition established by W.O. Bentley provided the decisive impetus for growth. Between 1983 and 1989 the share of Bentleys in overall Rolls Royce production rose from less than five percent to over 50. Three years later, two Bentleys were being sold for every Rolls Royce. Within the space of a decade, Bentley had become the dominant brand, with a new identity mainly embodied in the coupes of the 1990s. The imposing combination of performance and luxury had once again become

the signature of the brand, which was to flourish anew in the Volkswagen era.

A major factor in the development of the company, renamed Bentley Motors Ltd. in September 2002, was the reintegration of key competencies which had played a major role in the history of Bentley but had been outsourced away from the factory under the ownership of Vickers. These not only included prototype testing, but most especially the production of the V8 engine, which had been subcontracted to Vickers Engineering. Following its acquisition of the company, the Volkswagen Group brought engine production back to Crewe, providing Bentley's engineers with direct access to power plant development once again.

Volkswagen signalled its confidence in the brand and the workforce by investing a total of DM 1.1 billion in the modernisation of the factory and in the development of new products between 1999 and 2003. The Arnage Green Label, already developed when the acquisition took place, was revised and transformed within the space of a year into the Red Label, with a more precise suspension, more space in the rear and higher power output. Bentley's development engineers replaced the BMW engine with the more powerful V8, which boosted demand, raising sales in the year 2000 by 50 percent. The fundamental transformation of this model took more than two years before the Arnage T made its debut at the North American International Auto Show in Detroit in January 2002. Using technical know-how from Volkswagen, the Bentley engineering team had succeeded in considerably improving the rigidity of the design and the modified V8 now produced 456 hp, powering the Arnage from nought to 100 kilometres per hour in just 5.5 seconds.



ARNAGE RED LABEL



In June 2002, Bentley presented the first State Limousine to bear the winged B to HM Queen Elizabeth II. Coupled with a third place at Le Mans in 2001, these developments brought the brand considerable added prestige and highlighted the potential of Bentley. The Arnage series, tailored to the needs of the brand's key clientele, lived up to Bentley's claim to combine majestic luxury with dynamic performance, but did not provide long-term growth impetus, especially since exports to the USA were hit in the wake of the terrorist attacks on September 11, 2001. In 2003, Bentley's sales fell to 792 units.

It was the coupe developed to close the market gap between Mercedes and Porsche, an entirely new model, that was to bring the breakthrough for Bentley and open up a new customer segment. Designed, developed and built in Crewe, the Continental GT fulfilled a long-held dream for Bentley. The company had built a new assembly shed specially for this

EXP SPEED 8 IN LE MANS



new model. Constructed using bodyshells supplied by the Volkswagen plant at Zwickau, the traditional craftsmanship which still played a key role in its production was complemented by state-of-the-art technology. The production of a Continental GT took 150 hours, as against 400 hours for an Arnage. Following the debut of the prototype at the Paris Motor Show in 2002, Bentley launched the production model the following year. By that time, 3,200 orders had already been taken. The four-wheel-drive Continental GT embodied a striking synthesis of elegance, luxury and speed. The new model was powered by a compact 12-cylinder, twin-turbo-charged engine, giving the two-tonne car a top speed of 320 kilometres per hour on the test track. As had been hoped, the coupe allowed Bentley to attract new, younger customers impressed by its style, performance and technology.



COCKPIT OF THE CONTINENTAL GT

Bentley Motors sales grew ten-fold in 2004 compared to the previous year, rising to 7,411 units, including 6,715 Continentals, with the new Arnage accounting for the remainder. Further impetus was provided in 2005 by the Continental Flying Spur, which continued the design line of the coupe and brought Bentley added prestige as the maker of the world's fastest limousine. It was followed in 2006 by the convertible versions of each series: the Continental GT Speed Coupe, built at Crewe from 2007 onwards, and the Brooklands, launched in 2008. In 2007 the expanded product range for the first time boosted sales beyond 10,000 units – each vehicle produced to order in line with the customer's individual requirements and hand-crafted by masters of their trade.



CONTINENTAL FLYING SPUR



PRODUCTION IN CREWE

By 2009, sales had fallen back to 4,616 units. The recovery began in 2010 with the launch of the new Mulsanne. The new flagship embodied an exemplary combination of supreme luxury with the outstanding performance of the 12-cylinder engines. The new-generation Continental GT, featuring more distinct contours, extra interior space and additional driver assistance and information systems, delivered a sportily elegant and luxurious facelift to the model, enabling the brand to achieve turnaround in 2011. Bentley returned to profit after three loss-making years. Having delivered 8,510 vehicles to customers in 2012, sales had risen to 11,020 units by 2014, thanks in part to the eight-



BENTLEY MULSANNE

cylinder Flying Spur. This enabled Bentley to build further on its leadership position in the luxury car segment. Increased unit sales generated an operating profit of EUR 170 million. Key drivers of growth were the new V8 engines in the Continental GT and GTC as well as the launch of the new Continental GT Speed, which with a top speed of 330 kilometres per hour (205 mph) became the fastest road-legal Bentley ever.

Under the umbrella of the Volkswagen Group, the Bentley brand has returned to its roots. In contrast to the era of its founder, Bentley – now employing some 3,600 people – is financially sound. Volkswagen has provided technical support and considerable investment to make that achievement possible. Bentley has gained an international reputation as a maker of luxurious sports vehicles, and based on that brand profile has established a key position within the luxury segment of the Volkswagen Group.

## Bugatti

In the mid-1990s, Bugatti existed only as an automotive legend in the history books. Yet the myth of the luxury sports car from Molsheim lived on, with the 500 Bugattis still in existence bearing witness to outstanding engineering and ground-breaking design concepts in the automobiles of a past era. In 1998, Volkswagen took the opportunity to breathe new life into the ninety-year history of this grande marque of the past. Like the acquisitions of Bentley and Lamborghini which were completed the same year, the Bugatti takeover was part of the Volkswagen Group's strategy of establishing a luxury segment and harnessing a small but steady demand potential. In addition, the revitalisation of this traditional luxury brand was intended to reinforce the technical expertise and innovative strength of Europe's largest car-maker. The prestige gained in this way was to reflect on the Group's mid-class offerings and to enhance public perceptions of the Volkswagen Group's transition from a global volume manufacturer to an integrated alliance of brands with strong individual identities. At the top end of its car range, the Volkswagen Group was able to present Bugatti as an exquisite calling-card with the potential for redefining the boundaries of automotive engineering and design.

The story of founder Ettore Bugatti and his automotive creations reads like the biography of an artist searching for the perfect embodiment of his vision. Born in Milan in 1881, Bugatti first followed a family tradition by starting a course at the academy of art in the city. However, his ambitions did not lie in painting or architecture but focused on technology. As a self-taught engineer, Bugatti had already designed his first vehicle by the age of 20. He subsequently gained experience in almost ten years of training and journeyman, including with two German car manufacturers. In 1909

he rented a decommissioned dye works site in Molsheim in the Alsace region, where in 1910 he began independently building his own vehicles. To secure the capital needed to equip his factory, Bugatti sold licences to his designs to other companies. For example, some 3,000 units of the "Bébé" small car designed by Bugatti rolled off the Peugeot production lines between 1913 and 1916. Despite his success, he dreamt of creating automobiles with the dynamics and elegance of racehorses. The long and successful history of his thoroughbred racing cars started in 1910 with the Type 13.



TYP 13



ETTORE BUGATTI

Even though victory on the race track boosted awareness and sales of the sportsters from Molsheim, Bugatti's company was anything but profitable. He was always developing new products and these projects devoured the income from the 350 vehicles sold by 1914. In that year, the onset of the First World War brought a temporary end to automobile production at Molsheim. Bugatti made ends meet by designing aircraft engines and selling lucrative licences. As a result, he had the capital required to recommission his old factory in 1919.

The early 1920s were the ideal time for Bugatti to start production again. Modernity was replacing tradition and technology inspired art. Bugatti's cars seemed ideal for this "golden" epoch. The uncompromisingly aesthetic design



JEAN BUGATTI BY THE TYPE 41 ROYALE

of his vehicles was in tune with the spirit of the age and his racing successes underscored the creativity of Bugatti as a designer. The resulting reputation, high standards of workmanship and exclusiveness of his cars, produced in very small series, made Bugattis status symbols of the highest prestige. In addition, the entrepreneur Ettore Bugatti succeeded in tailoring his models to the individual wishes of his prosperous and often famous customers using a kind of modular component kit principle which meant that different chassis could be combined with two engine variants and various types of body.

Following the T 35 and T 37 racing and sports cars and the T 38, T 40 and T 44 tourers, Bugatti produced his first pure luxury vehicles from 1926 onwards. The six Type 41 "Royale" models were simply unique, not only because of their 13-litre engine and their top speed of 165 kilometres per hour. The price of 160,000 Marks made the "Royale" the world's most expensive car at the time – as well as a source of dramatic losses. The grand lifestyle of the founder's family and the impact of the Great Depression placed additional strains



on the company's finances in the early 1930s. Once again, Bugatti's inventiveness saved the day. Production of locomotives for the French railways improved liquidity and allowed the company to survive. Nevertheless, from 1932 onwards Ettore Bugatti gradually retired from the company's management, handing over the reins to his son Jean. Jean initiated a noticeable change of direction. Instead of producing a confusingly large number of models, he created the T 57, a universal platform which could be delivered as a limousine, coupe, tourer or racing car. A derivative of this series, the T 57 Atlantic, is still today regarded as one of the most beautiful automobiles ever built, although only three were sold.

In fact, Bugatti did not achieve turnaround. By the end of the 1930s, sales had stagnated and its competitors had overtaken Bugatti not only in technical terms. The death in an accident of Jean Bugatti, the shining hope of the company, in 1939 led to the decline of an automobile legend. In the Second World War, the Bugatti factory was converted into an armaments plant and automobile production in Molsheim seemed to be doomed. Even though the plant was returned to the family after the War, the death of Ettore Bugatti in 1947 robbed the company of its creative drive. In the years that followed, all the attempts made to secure the survival of the Bugatti brand were doomed to failure. In 1963, the Bugatti family sold the company, complete with the Molsheim factory, to the Spanish company Hispano-Suiza.

Although the lightning-fast racing cars and luxury limousines with the famous Bugatti radiator shaped like a horse-shoe gradually disappeared from the roads, only being admired as museum exhibits or collectors' items, Bugatti's



CHATEAU SAINT JEAN IN MOLSHHEIM

philosophy of combining engineering excellence with aesthetic perfection has always retained its fascination. This idea was also taken up by Italian businessman Romano Artioli, who acquired the rights to the Bugatti brand from their then owner, the French armaments group SNECMA, in 1986. Under his auspices, a new super sports car, the EB 110, was created under the Bugatti name in 1991 at a new plant in Campogalliano in Northern Italy. Although 120 vehicles were sold, economic reality once again put an end to the high-flying ambitions associated with Bugatti. The first brief revival of the Bugatti legend came to an end with the closure of the plant in 1995. However, Artioli continued to hold the rights to the brand via his Luxembourg-based company Bugatti International S.A. Holding.

On July 10, 1998, Volkswagen AG acquired the holding company and, with it, the option to continue the legendary marque. Apart from capital, it would clearly take considerable technical expertise as well as a highly developed sense of style and perfection to revive the flair of the Bugatti brand.



PRODUCTION IN MOLSHEIM



VEYRON

Volkswagen took up preliminary studies carried out by Giorgio Giugiaro's company Italdesign. On behalf of Artioli, the Italian designer had already presented a concept car under the famous acronym of "EB" in 1993 and development work had continued on that basis. The prototype created by Giugiaro generated considerable excitement at the Paris Motor Show in September 1998. The EB 118 embodied a modern reinterpretation of the elegant coupes that had been crafted at Molsheim in the 1930s. In 1999, Volkswagen presented the 18/3 Chiron and 18/4 Veyron concept studies. Both the design of the carbon fibre bodies and the 555 horsepower engine took up the tradition of the luxury super sports car. The same year, Volkswagen returned to the birthplace of the Bugatti legend by acquiring Château St. Jean in Molsheim. Bugatti Automobiles S.A.S. was founded on December 22, 2002 and, after several years' development work, production of the Veyron 16.4 was started with a workforce of 45 in September 2005.

The new Bugatti from Molsheim brings extraordinary engineering and design back to the roads. The minimalist design and outstanding workmanship of the purist interior clearly allude to the predecessor models of the Veyron. Its W16 light-alloy engine has a power output of 1001 hp, making it the most powerful mass-produced unit in the history of the automobile. The fastest road-legal sports car in the world thus achieves a top speed of over 400 kilometres per hour (250 mph). The Veyron 16.4 Grand Sport without the removable roof module is slightly slower. Entirely hand-built like the coupe, the convertible made its stylish debut in 2008 on the evening prior to the Concours d'Elegance in Monterey, California. The Roadster has topped off Bugatti's leading position in the luxury sports car segment. The Super Sport, Vitesse and Les Légendes models add further to the exclusivity, luxury, elegance, superb design and pure passion of the brand. The renaissance of the Bugatti legend under the umbrella of the Volkswagen Group has been a resounding success.



## Ducati

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Ducati became the eleventh brand in the Volkswagen Group portfolio on July 19, 2012. The acquisition of the legendary high-performance sports motorcycle manufacturer based in Borgo Panigale on the outskirts of Bologna, Italy, by Audi subsidiary Lamborghini Automobili S.p.A. marked the Group's entry into the hard-fought two-wheeler market. The unmistakable sound of the Ducati's two-cylinder engine evokes echoes of Audi's own historic DKW and NSU motorcycle brands.

In the year of its acquisition, Ducati sold more than 44,000 units, generating turnover of some 480 million euro – its best ever financial performance, based primarily on stronger US sales. Prior to that year the company – known in Italy as “la rossa” because its bikes are predominantly sold in red – had engaged upon a campaign to cut costs and refresh its model range, as well as paving the way for future growth in Asia by building a plant in Thailand. Under the Volkswagen Group umbrella, Ducati operates as an autonomous brand within the Audi AG unit, aiming to build on its market position as a premium sports motorcycle manufacturer and exploit its know-how in light-weight construction and engine development.

The characteristic sound of the red racing machine stems from the Ducati's two-cylinder engine featuring desmodromic valves. This fully controlled valve movement technology, which prevents loss of power at high revs, originated from car racing and was first deployed by Ducati in 1956 in its 125 Desmo model. The composite word desmodromic comes from the ancient Greek words *desmos* (meaning “bond” or “knot”) and *dromos* (meaning “track” or “way”). The term incorporates the major characteristic of the valves

as being continuously bound to the camshaft while also denoting their primary application in the motorsport arena. This was how Ducati established the foundations for its global reputation as a sports brand, as racing Ducatis featuring desmodromic valves surged ahead of their strong competitors in the period after 1956. In 1968 the company began deploying the technology in its production models too. Despite its successes in engineering development and in the motorsport world, Ducati has had a somewhat chequered history in terms of its ownership.

The present-day company can trace its roots back to a business founded by brothers Adriano, Bruno and Marcello Ducati together with a number of other investors in Bologna. Registered on July 4th, 1926, with its address in via Collegio di Spagna 9 in the heart of Bologna's old city, “Società Scientifica Radio Brevetti Ducati” made capacitors for radios. The company's products were based on a patent held by the eldest brother Adriano, who had already made a name for himself while a physics student with his short-wave radio experiments. The first major order, for the Argentinian market, acquired by the business in the Autumn of 1926 was in fact produced before the move to dedicated premises, in the basement of the family home, the Villa Lydia, at viale Guidotti 51 in Bologna.

Ten years later the company had established a 12 hectare manufacturing facility on an industrial site in the western suburbs of Bologna at Borgo Panigale, which is still Ducati's home today. The foundations for the new plant were laid on June 1, 1935, and from that date on the business enjoyed rapid growth, making both capacitors and radios. Employing 3,500 people, the progressive complex included

FACTORY AND WORKFORCE  
IN BORGO PANIGALE



canteens, kitchens, leisure and healthcare facilities. Ducati expanded its production in the pre-war era, doubling its workforce. From 1938 it began making cameras, optical lenses, cash registers and electric shavers in addition to radios. Sales offices in London, Paris, New York, Sydney and Caracas underscored the company's export drive.

However, in April 1939 Ducati was ordered by Italy's Fascist government to switch its production to armaments, as a result of which the company began making weapons, as well as capacitors and optical equipment for the military. A massive Allied bombing raid on October 12, 1944 destroyed much of the Ducati works.

Reconstruction of the devastated facility – once again as a family business – began as early as May 1945. The markets for capacitors, radios and cameras had collapsed however. Ducati switched to products including spectacles, wheel hubs for bicycles and dynamos. By 1947 the works had returned to its pre-war scale, employing as many as 4,500 people. That rapid new expansion had been founded on the equally rapid accumulation of debt, however, which ultimately led to insolvency and nationalisation. Ducati was split into two main units, manufacturing optical and mechanical products respectively, and from that split in 1954 emerged the company known as Ducati Meccanica based at the Borgo Panigale location.



GRAND SPORT

The survival of the Ducati firm, and its establishment of a motorcycle manufacturing business, was primarily down to the involvement of the original Società Scientifica Radio Brevetti Ducati in the production of a four-stroke auxiliary motor with a two-speed gearbox developed by SIATA (Società Italiana Applicazioni Tecniche Auto-Aviatorie). The motor, conceived back in the wartime period, was intended to bring power to Italy's most important post-war means of transport: the bicycle. Fitted with the small clip-on motor, driving the wheels via the chain, a bicycle could be turned into a simple yet speedy vehicle: the moped. The small but efficient engine named Cucciolo (meaning puppy; cub; fledgling; or also "greenhorn") went into production in May 1945 in Turin. But SIATA was reaching the limits of its in-house production capacity, and in March 1946 contracted Ducati to make the moped engine. At the Milan trade fair in September 1946, Ducati's engineers presented a higher-powered

version of the Cucciolo. The first Cucciolo engine designed completely by Ducati went into production in Borgo Panigale in 1948. It was enthusiastically taken up by motorcycle racers, helping them to a string of victories in Italy's popular road races.

The company's engineers continually enhanced the engine's performance, designing dedicated frames and building the first mopeds of their own, with 55 to 65 cc capacity. As a result, by 1954 Ducati had progressed from being merely a SIATA component supplier to become an independent motorcycle manufacturer. Fabio Taglioni (1920-2001) joined the company on May 1st, 1954. Taking up the challenge of meeting the demand for ever more powerful motorcycles, the highly skilled engineer quickly rose to become chief designer at the Borgo Panigale works.

Taglioni it was who designed the Marianna, a single-cylinder Gran Sport with 100 cc capacity and featuring an overhead camshaft, with which Ducati enjoyed major success in the tough competition of Italian long-distance racing in 1955. The open-bottom frame design, with the engine acting as a load-bearing element, was to provide the basis for many later models with capacities up to 350 cc. The company's sustained successes on the race track boosted sales and drove mass production volumes, providing Taglioni with a free hand to utilise costly new engineering solutions. In 1956, Taglioni developed the Desmo 125 for the motorcycle Grand Prix circuit. Featuring three camshafts and desmodromic valve control, the bike delivered very high revs without suffering the feared power loss due to valve wobble. On July 15, 1956 the new Ducati caused a storm by lapping the entire rest of the field in winning the Swedish Grand Prix.

Sporting success did not bring an economic upturn however. By the late 1950s the demand in Italy was increasingly turning to small cars and, like all motorcycle manufacturers, Ducati was hit by a sales crisis on its key home market. The company – still under state control – switched its attentions to export markets. In 1957, Mototrans began making Ducati motorcycles under licence in Spain. Ducati opened up a distribution network in the USA, while a major order from Switzerland secured production at the Borgo Panigale works for the time being. Recognising commercial necessity, the company's management took the decision to end its cost-intensive racing activities.

In 1963, importer Berliner acquired a contract for Ducati to build a motorcycle for police forces in the USA. But the project – codenamed Apollo – failed because the load-bearing capacity of the tyre material was insufficient to transmit the engine power reliably onto the road. The four-cylinder unit nevertheless served as a template for the ongoing development of high-capacity two-cylinder engines. These were key to the advancement of the brand during the 1970s, as was the introduction of the desmodromic valve control system into production bikes from 1968 onwards. With the two cylinders offset at right angles, this design minimised engine vibration while at the same time enabling optimum cooling. It provided Ducati with the capability for a successful return to the race circuit.

Ducati's breakthrough in the elite class of motorcycle racing, the 500 cc, came at the Imola 200-mile race on April 23, 1972. The works drivers on their modified two-cylinder 750 GT production bikes featuring high-performance desmodromic technology gained an impressive victory, finishing



DESMO

well ahead of their Japanese and European competitors' recently upgraded four-cylinder engines. After its success in Imola, Ducati stuck with the two-cylinder engine. Developed and enhanced over the years in a wide range of capacity variants for different models, it continues to be a defining feature of the brand to this day.

Following its gradual acquisition by motorcycle manufacturing concern Castiglioni Giovanni Varese, owned by brothers Claudio and Gianfranco Castiglioni, in 1985 Ducati became the premium-segment brand of the Cagiva group. Cagiva drove forward Ducati's development activities, targeting new models at both the customer market and the race circuit. During the early 1990s, Cagiva enduro bikes powered by Ducati engines took the podium places in the great African rally events. The development of water-cooled four-valve two-cylinder engines paid off for Ducati in the



RACE IN IMOLA

newly created World Superbike Championship. The brand enjoyed a period of dominance from 1990 onwards, with a sustained string of victories over its large-volume competitors, and also turned its attention back to the motorcycle Grand Prix circuit.

The culmination of Ducati's return to making sports motorcycles came in 1993 with the big-selling Monster production road bike model. The new model's trellis frame and two-cylinder engine combined to create a style icon. The naked bike, with its distinctive design embodying a sense of pure power, hit a nerve with customers, and has sold over 250,000 units to date.

With the acquisition of a share-holding by private equity firm Texas Pacific Group in 1996, and following its full acquisition by that company in 1998, Ducati gained fresh capital and a new, international management who reor-

ganised the company's selling operations, focusing on brand image. A company museum was opened in 1998, commemorating its many race successes and technological innovations. Exclusive Ducati stores were launched, selling branded clothing and accessories. The famous World Ducati meets held on a regular basis represent an expression of the passionate and growing commitment of "Ducatisti" to the brand all over the world.

Having been converted into a public corporation, Ducati Motor Holding, in 1999, the company maintained its progress as a successful global brand following its acquisition by private equity firm Investindustrial on March 1, 2006. In September 2011, production of the Monster 795 model was started at the new Ducati assembly plant in the province of Rayong in Thailand. In 2012, Ducati entered into an agreement with DaFra Motos to launch CKD production of the Diavel and Monster 796 models in Manaus as a base to serve the Brazilian market.

Ducati has been continually expanding and updating its product range since the turn of the millennium. The desmodromic valve control system, the tubular steel trellis frame and the L-configuration two-cylinder engine are unmistakable features of every Ducati. The latest models – the Monster, the Streetfighter and the Diavel – set new design benchmarks in the naked bike category. The Multistrada combines power and endurance to deliver all-round performance for long-distance tourers, and alongside the lighter Hypermotard marks a further advance in Ducati's enduro segment development. The Streetfighter and Superbike models combine the very latest developments in the motor-sport field with the demands of road riding.



MONSTER 900

The undisputed top-of-the-range model, however, is the Superbike 1199 Panigale. Its 1.2 litre L-Twin engine develops 143 kilowatts (195 hp) of power at 10,750 revs. The engine management system, ABS, brakes, traction control and suspension can be tailored to individual drivers' needs in a choice of three lines. Thanks to the extensive use of light-weight components, the Panigale R weighs just 164 kilograms empty. Its power-to-weight ratio of 0.84 kilograms per unit of horsepower is the best of any road bike.

Motorsport operations are run by a dedicated racing division, named Ducati Corse. Ducati operates a works team on the MotoGP circuit. In 2007, Ducati won the MotoGP manufacturers' and drivers' championships. In the World



PANIGALE S TRICOLORE

Superbike Championship Ducati has won a string of manufacturers' and drivers' titles, celebrating its 300th race victory in 2011.

Ducati generated sales of sold 45,117 motorcycles in 2014, generating sales revenues of 457 million euro. Ducati Motor Holding S.p.A. operates in many countries, owning a number of subsidiary companies in key markets. As of 2014, the company employed 1,088 people at its home base and in Thailand. Ducati's fascinating motorcycles – including the Scrambler launched in 2014 – set the benchmark in terms of light-weight construction, high-performance engines and control systems. Their design is unmistakable. The Ducati brand is determined to keep powering ahead in the fast lane.



## Lamborghini

To this day, the unbridled energy of a fighting bull is the trademark of the super sports cars built in Sant'Agata Bolognese, both on and under the bonnet. In contrast to Bugatti, the legend of Lamborghini was still very much alive in 1998, as evidenced by the roar of the V12 engine. This unique combination of speed, style and perfection attracted the attention of the Volkswagen Group, which was looking to develop a luxury segment to enhance its prestige and market coverage. The opportunity came when the Indonesian holding company Megatech could no longer put up the capital required by its Italian subsidiary and Lamborghini faced financial problems. Company representatives searching for an engine for their Aersa prototype contacted Audi. As a result, Volkswagen learnt that the Lamborghini brand was for sale. Following lengthy negotiations, Automobili Lamborghini S.p.A. was acquired on July 10, 1998.

Lamborghini became the Volkswagen Group's third luxury brand alongside Bentley and Bugatti in 1998. The main reasons for the marriage between Audi and Lamborghini were the similarity of brand profiles and product technology as well as the resulting synergy effects. While the brand from Ingolstadt was able to underscore its positioning in the premium segment, Lamborghini could call upon the resources of a leading technology company and its sales expertise. In November 1998, the new Audi subsidiary was converted into a holding company with three operating companies: Automobili Lamborghini S.p.A.; Matri Marini Lamborghini, producing speedboat engines; and Lamborghini ArtiMarca S.p.A., a company marketing exclusive accessories. With the support of Audi, Lamborghini embarked on the most successful chapter in its 45-year history.

Ferruccio Lamborghini had become rich as one of Italy's major tractor manufacturers before establishing Automobili Ferruccio Lamborghini S.p.A. in Sant'Agata Bolognese in 1963. He wanted to build a normal Gran Turismo, albeit a perfect one. While the factory was still being built on a green-field site, the first prototype took shape at his tractor plant. The founder entered the world of sports car legends in 1963, when the 350 GT, an extravagant lightweight coupe, made its debut at the Turin Motor Show. Its flat bonnet concealed a light-alloy V12 engine developing 360 horsepower. In modified form the same engine, designed for Lamborghini by former Ferrari engineer Giotto Bizzarrini, still powers the Murciélago today. This high-performance power plant was well-matched with the charging bull which already decorated Lamborghini tractors and now became the



FERRUCCIO LAMBORGHINI IN FRONT  
OF THE TRACTOR PLANT IN CENTO





## MIURA

trademark of a new class of super sports cars. Production of the legendary Miura started at the end of 1966. At a height of only 106 centimetres, the Miura was as low and aerodynamic as a racing car. Its transverse mid-engine configuration was also unique outside of motorsport, and its top speed of 278 kilometres per hour simply breathtaking. Demand for the new car was beyond everyone's expectations, and Lamborghini sold 150 Miuras between 1966 and 1969. The factory was expanded, and the workforce grew.

At the Geneva Motor Show in 1971, Lamborghini presented its entire product range, comprising the production models Miura, Espada and Jarama as well as the Urraco and Countach prototypes. Just as the company was apparently approaching its zenith, high development costs combined with falling production figures brought about a financial crisis at

Lamborghini. Demand was subdued by rising oil prices and increasingly stringent safety and emission standards in the USA, making access to that key export market more difficult. As the tractor plant also faced financial problems, Ferruccio Lamborghini disposed of his loss-making activities with a view to stabilising his corporate empire. In 1972, he also sold off his car-making business, which had brought him fame, but no profit. One of his friends, Swiss businessman Georges-Henri Rosetti, acquired a 51 percent stake and the remaining shares were purchased by his associate René Leimer in 1974.

A phase of constantly changing ownership and varying commercial success began, which persisted until 1998. Production of the Urraco and Countach prototypes developed by Ferruccio Lamborghini's company started under Swiss



COUNTACH QUATTROVALVOLE

management. However, neither of the two models obtained homologation for the US market, which severely limited sales. In addition, the company suffered from the impact of the oil crisis. To ensure the survival of the Lamborghini brand, and to make use of the technical expertise available, the new management took on development contracts for other car-makers. However, the very first project, the BMW M1 made little headway and only exacerbated the financial problems. Ultimately, the Swiss entrepreneurs, who were relative newcomers to the car industry, displayed little skill in the management of the company, especially since they were not prepared to make the necessary investments. At the end of 1978, the company went bankrupt. A court-appointed administrator became managing director and searched in vain for a potential buyer for two years.

Finally, in February 1980, the brothers Patrick and Jean-Claude Mimram acquired the company, which they re-established as Automobili Lamborghini S.p.A. in July of the same year. The brand experienced an upturn under their leadership. The Jalpa followed the luckless Silhouette in 1982, while the Countach LP 500S finally achieved a breakthrough in the USA in 1984, much to the pleasure of US Lamborghini enthusiasts. The profit generated by the company in this phase was insufficient to fund the high development costs for new models. This problem seemed to have been solved when the financially strong Chrysler Corporation acquired the Italian sports car manufacturer

in April 1987. In 1990 this link resulted in the launch of the Diablo, an entirely new design which was to sell more than 2,600 units through to 1998. However, the first luxury sports car built under the auspices of Chrysler was also to be the last. At the beginning of the 1990s, the US car-maker faced yet another crisis and lost interest in Lamborghini, especially after the company recorded seven-figure losses in 1993. In 1994, Lamborghini was acquired by the Indonesian holding company Megatech, which in 1995 launched the ground-breaking Cala, styled by Giorgio Giugiaro, at the Geneva Motor Show. Megatech's commitment subsequently declined, however, and Lamborghini again lost its financial backing.

After 35 more or less turbulent years, Lamborghini found a safe haven with the requisite financial and personnel stability to turn its creative potential into commercial success under the umbrella of Audi. At that time, Lamborghini urgently needed a new flagship to heighten its profile and replace the Diablo, which had become outmoded. By the beginning of 2000, the design of the successor had been finalised and production of the Murciélago, named after a famous fighting bull, started in October 2001. A superlative sports coupe with typical Lamborghini character and an unmistakable silhouette had been created in record time. On the test track, the Murciélago, powered by a 580 hp V12, reached 326 kilometres per hour, continuing the performance tradition of its predecessors. The Murciélago was extremely popular with customers. It sold 442 units in 2002 – double the sales of the Diablo in the previous year. However, the break-even point had not been reached as this sales growth was only made possible by considerable investments.



ASSEMBLY OF THE GALLARDO  
IN SANT' AGATA BOLOGNESE

It was the Gallardo, launched in February 2003, that stimulated the demand impetus needed to steer Lamborghini to profitability. After many years, and timed to coincide with the company's 40th anniversary, Lamborghini once again launched a second product line at the Geneva Motor Show; a product line which owed much to the technical expertise and development know-how of the parent company. Both the aluminium body and the V10 developed at Audi were joint undertakings by the specialists in Ingolstadt and Sant' Agata Bolognese. As regards performance, there was very little difference between the Gallardo, a four-wheel-drive two-seater with a 500 hp power plant, and the Murciélago; the styling was also very reminiscent of the larger model's design lines. However, while the Murciélago could only



MURCIÉLAGO ROADSTER

reach a very small customer segment, with sales figures between 400 and 500 units up to 2006, the more compact, less expensive Gallardo was accessible to a wider range of enthusiasts. In the first year of production, 933 Gallardos were sold, with new customers accounting for about three quarters of the total. Overall sales tripled against the previous year to 1,305 units, more than half being exported to the USA and Germany, and over a third to Switzerland, the UK and Japan. Further boosts were provided by the Murciélago Roadster and Gallardo Spyder, the open versions of the two models, taking unit sales beyond the 2,000 mark in 2006. Since the introduction of the Diablo 6.0 in the year 2000, Lamborghini had sold more of its super sports cars than in the entire history of the company prior to its acquisition by the Volkswagen Group.

The Italian company gave visible expression to its success by modernising the production plant. Some of the upgrading was intended to reinforce the brand image and strengthen customer loyalty. Behind the fully glazed façade of the plant, there is now a showroom and a museum. And dealers' showrooms have also been attuned to the exclusiveness of the product. A new building commissioned into operation in 2004 houses the restoration department, a customer service centre for all Lamborghinis ever built and the design centre, where development work on the brand designs continues. The Centro Stile Lamborghini underscores and reinforces the design expertise of the brand, which has won the accolade of "World's most beautiful automobile" in the super sports car class twice, for the Gallardo and the Murciélago Roadster.

Despite the necessary modifications, the factory is still structured around two production lines where employees assemble both models, as in the era of the company's founder. Most components come from Italian suppliers, while the luxurious outfitting of the cars, as ever, demands high levels of hand-crafting carried out in workshops located along the production lines. The Murciélago in particular features craftsmanship of the highest calibre. In contrast, production of the Gallardo, for which the Audi plant at Neckarsulm supplies the painted body, is more automated, allowing for higher volumes and lower prices. In 2004, the workforce in Sant'Agata Bolognese assembled 10 Murciélagos and 25 Gallardos per week. After all, perfection takes time. That also applies to the engine production. Since 2008, engines for the Gallardo have been built at the Audi plant in Hungary, while the V12 units for the Murciélago are still made in Sant'Agata Bolognese.



SANT' AGATA BOLOGNESE FACTORY

Under the leadership of Audi, the technology-driven super sports car-maker has been transformed into a profitable, customer-oriented company. For the first time in the company's history, there are good prospects for sustained growth and commercial success. In 2008, with its workforce of around 1,000, Automobili Lamborghini surpassed the previous year's record performance. While unit sales rose only slightly to 2,458, pre-tax profit improved by some 27 percent to around 60 million euro. Lamborghini was able to compensate for the collapse in sales on its biggest market in the USA with strong growth in Asia, Eastern Europe and the Middle East. The People's Republic of China, especially, has developed into a fast-growing and highly promising market for the brand's luxury products. In order to exploit that potential, and build up a sales and service organisation in the country, in 2008 the Italian manufacturer established its first international subsidiary company – Automobili



AVENTADOR

Lamborghini China, based in Beijing. However, a downturn in the economy in 2009/10 saw sales of the super sports cars halve to 1,227 units. The launch of the Aventador in 2011 marked the start of a recovery, and by 2012 Lamborghini's sales had climbed back to 2,197 units. 2014 saw the launch of the Huracán, which together with the two Aventador models boosted sales for the year to 2,530 units. Sales revenues climbed to 585 million euro, while the workforce increased to 1,058. The brand has established itself firmly at the top end of the Volkswagen Group's product portfolio. Its qualities of supreme style and uncompromising performance imbue it with an unmistakable profile within the Group's luxury segment, and also make it a leader in the super sports car world. Over 50 years after its birth, the Lamborghini legend is more alive than ever.

## MAN

MAN – the three letters stand for one of the world’s leading vendors of commercial vehicles, large diesel engines and special gear systems. Volkswagen Aktiengesellschaft acquired a majority share in the parent company MAN SE at the head of the capital goods concern, with its workforce of over 54,000 people worldwide, in a gradual process culminating on November 9, 2011. MAN has been an independently operating brand of the Volkswagen Group since that time. Volkswagen Aktiengesellschaft had held a strategic minority share of 15.06 percent in MAN AG since October 3, 2006. The control and profit transfer agreement approved at the shareholders’ meeting of MAN SE on June 6, 2013 and implemented by entry in the Register of Companies on July 16, 2013 also aided the creation of an integrated commercial vehicles unit. MAN is now one of the three commercial vehicles brands of the Volkswagen Group which since September 1, 2012 have been co-ordinated by Group parent Volkswagen Aktiengesellschaft’s Management Board Commercial Vehicles function. Like the other brands, MAN runs its vehicle business operations independently. The Volkswagen Group’s integrated commercial vehicles strategy seeks to utilise synergies from the closer co-operation between Volkswagen Commercial Vehicles, MAN and Scania under the umbrella of parent company Volkswagen Aktiengesellschaft.

The three-letter MAN name originates from its former name “Maschinenfabrik Augsburg-Nürnberg”. Today the MAN Group comprises four large business units. The largest of them is MAN Truck & Bus, based in Munich. In 2012 its truck and bus products and transport solutions generated 15.7 billion euro, representing 55.1 percent of the MAN Group’s total sales. Sales of large diesel engines and turbo-

machines by the MAN Diesel & Turbo unit accounted for 23.9 percent of the total. MAN Latin America consolidates all the Group’s commercial vehicle operations in Central and South America, and generated 18.1 percent of total Group sales in 2012. Renk AG, in which MAN SE holds a 76 percent share, generated 2.9 percent of total sales with its heavy-duty gear systems.

Most of the MAN Group’s sales are generated by the production and sale of diesel engines and commercial vehicles. Efficient drive and energy systems are the core brand values to which MAN has adhered throughout its more than 250-year history. It was the invention of the diesel engine, with its wide-ranging application variants, along with the continual development of ever more economical engines which enabled the MAN brand to establish itself and prosper. That long and illustrious history was reason enough for the company to mark its 250th anniversary in 2008 not only by looking back to the beginnings of the business in the 18th century, but also by celebrating two of its major milestones: the development of the diesel engine by Rudolf Diesel at the Maschinenfabrik Augsburg, including his design of the first prototype to run under its own power on August 10, 1893; and the manufacture of the first truck featuring direct diesel fuel injection in 1923.

The name MAN was actually only first introduced in 1986, following the merger of M.A.N. AG into the Gutehoffnungshütte Aktienverein mining and engineering corporation to create the newly named MAN Aktiengesellschaft – eliminating the three dots of the abbreviation. The history of the brand, with its numerous innovations, changes of ownership, acquisitions and disposals, and its move from mining,





ST. ANTONY IRONWORKS

iron and steel into engineering and the manufacture of commercial vehicles, is a history of specialisation and continual change.

The oldest predecessor business of the later Gutehoffnungshütte concern, and thus of the MAN Group, was the Eisenhütte St. Antony ironworks, which began operating in Osterfeld, in what is today the town of Oberhausen, most likely in mid-October 1758. The St. Antony works made cannon balls, ovens and tableware, and during the era of Prussian military expansion also sold them beyond its own borders. Directly neighbouring the ironworks were two competitors: the Gutehoffnungshütte in Sterkrade, and the Eisenwerk Neu-Essen near Essen.



STEAM ENGINE

The three merged in 1808 to create the iron fabrication and trading company of Jacobi, Haniel and Huysen (JHH), marking a shift into manufacturing based on its own in-house iron production. The company moved into the manufacture of steam engines for the region's growing coal field, steam ship building, the production of rails for the railways, and bridge building. From 1853 onwards, at the urging of Franz Haniel, it also began mining coal at its own pits. The workforce increased from 176 in 1818 to 1,607 in 1846.

The Gutehoffnungshütte (GHH) was converted into a stock corporation on January 1, 1873. As industrialisation boomed, GHH rapidly increased its coal and iron ore mining and iron production, while its engineering operation grew





CONSTRUCTION OF THE MÜNGSTEN STEEL BRIDGE

in the shadow of the iron and steel working output to itself become an international operation. The Gutehoffnungshütte works not only made heavy-duty plant such as locks and cranes, it increasingly began moving into the construction engineering field, building factory sheds and especially, bridges for Russia, South America, South Africa and Japan. It was in 1904 that the company sold its first steam turbine. In 1909, the Supervisory Board chaired by Franz Haniel jr. appointed Paul Reusch as the company's Managing Director. He drove a vertical expansion of the business, incorporating coal mining, through iron and steel production, to machinery manufacture and shipbuilding.

The southern German part of the MAN Group can trace its origins back to the establishment of the Sander'sche Maschinenfabrik machine works in Augsburg in 1840 and of the iron foundry and machine works Klett & Comp. in Nuremberg in 1841. They merged in 1898 to form the "Vereinigte Maschinenfabrik Augsburg und Maschinenbaugesellschaft Nürnberg AG" (M.A.N.).

The crisis in the textile industry, the resultant decline in orders and the tougher competition on the steam engine market meant that by the mid-1860s the business in Augsburg was increasingly seeking out new business fields. Company director Heinrich von Buz was a keen innovator. At the World's Fair in Vienna in 1873 the company exhibited the first rotary printing machine for newspapers, and in the same year built the first refrigerating machines for breweries, based on a development by Carl von Linde. The key innovation by Maschinenfabrik Augsburg was the development of the diesel engine. Based on Rudolf Diesel's design, documented in patent number 67207 dated February 28, 1892, Maschinenfabrik Augsburg built a functioning engine featuring self-ignition which Diesel himself, after many setbacks to the development process, presented to the Association of German Engineers in Kassel on June 16, 1897. The MAN factory in Augsburg is thus considered to be the birthplace of the diesel engine.

While Reichenbach and Buz were re-orienting the output of the Sander textile works, the Klett machine works in Nuremberg was just beginning production. Starting in 1841, businessman Johann Friedrich Klett and three partners initially focused on making iron products for the

expanding railways. The factory first started manufacturing steam engines, before in 1850 moving into wagon-building and the construction of iron structures. For a large-scale project to construct a bridge over the Rhine in Gustavsburg in 1860, the company established a works on-site, which was developed into a full-scale branch production plant for moveable bridge components.

In 1873, the Nuremberg-based Klett machine works was converted into a stock corporation and renamed Maschinenbau-Actien-Gesellschaft Nürnberg. The branch in Gustavsburg became Süddeutsche Brückenbau AG. The decline in orders as a result of the crisis in the early years of the German Reich brought tough times to the works, and starting in 1873 the stock corporation made more than half of its workforce of 3,612 people redundant. The difficult situation was exacerbated by the excessive focus on wagon-building, the strengthening of competition in iron construction, and the outmoded refusal to seek additional capital for long-term investment.

It was only the 1898 merger with Maschinenfabrik Augsburg to create the “Vereinigte Maschinenfabrik Augsburg und Maschinenbaugesellschaft Nürnberg AG” which delivered the essential capital increase, and at the same time marked the start of business in innovative diesel engines, which were seen as replacements for the now outdated steam engine technology – though at first primarily for stationary applications. The first power plant run on a MAN large diesel engine from Augsburg was opened in Kiev in 1904. The merger of the two machine works in Nuremberg and Augsburg, though largely still organised on a decentralised basis, created the biggest industrial concern in



FIRST DIESEL ENGINE

Bavaria. Its name was first shortened to “Maschinenfabrik Augsburg-Nürnberg AG” (M.A.N.) at the annual general meeting held on December 7, 1908.

The M.A.N. company blossomed, becoming a leader in the international printing machine and structural steel engineering sectors. Among its prominent fabrications were the girders for the suspended railway in Wuppertal. Even before the merger, Anton von Rieppel in Nuremberg had been working to develop Diesel’s self-ignition engine invention into a small drive system for motor vehicles.

Initially, however, M.A.N. focused on the growing market for ships’ diesel engines, building them at both production locations. While the Augsburg works made the four-stroke diesel, Nuremberg built the two-stroke unit. In 1910, the

Nuremberg-based business succeeded in entering into a co-operation agreement with Hamburg shipyard Blohm & Voss. In 1912, the “Selandia” became the world’s first ocean-going ship powered by diesel engines. They were sourced from Danish company Burmeister & Wain (B&W), which is today part of the MAN Diesel & Turbo unit. M.A.N. products were by this time selling around the world. By 1913, exports had risen to 29.8 percent of the total sales of 99.9 million Marks. The workforce had increased to 15,792.

After the outbreak of the First World War, an enquiry from the Army for trucks was the trigger for a co-operation agreement with Swiss automobile maker Adolph Saurer to produce commercial vehicles. The business had in fact started paving the way in truck development even before the turn of the century, and was keen to penetrate the new market segment, among other reasons to utilise capacities at the Nuremberg factory after it had transferred ships’ engine manufacturing operations to Augsburg. The establishment of M.A.N.-Saurer Lastwagenwerke GmbH, known as LWW for short, in Nuremberg on June 21, 1915 marked M.A.N.’s first venture into commercial vehicle manufacturing, under the conditions of the First World War. In the first year of the joint venture’s operation, 118 trucks rolled off the production line in Lindau, with five being built in Nuremberg. The main customer was the Army. The Lindau facility was closed in 1916 following the relocation of truck manufacturing to Nuremberg. By mid-1918 LWW had produced 665 trucks, mostly for use in the war. Military users praised the robust design of the petrol-driven vehicles.

In the Autumn of 1918 Saurer withdrew from the business, agreeing that M.A.N. would in future manufacture under licence. On November 14, 1918 the company was renamed M.A.N.-Lastwagenwerke. M.A.N.’s demand for iron and steel coincided with Gutehoffnungshütte’s expansion strategy, which had been launched with a series of acquisitions and investments. Machinery manufacturing was particularly attractive to it, because it offered the opportunity of cost-effective fabrication based on Gutehoffnungshütte’s iron and steel products. M.A.N. was burdened by heavy debt at the time, after having unsuccessfully attempted to move into locomotive-building. Consequently, the Bavarian business was looking for a strong partner in the Ruhr iron and steel working industry. After the founding of the Deutsche Werft shipyard in Hamburg and the purchase of the Eisenwerk Nürnberg ironworks in Nuremberg and the Maschinenfabrik Esslingen machine works, in 1920 the GHH Group acquired a majority share in M.A.N.

M.A.N. was only able to withstand the turmoil of hyperinflation thanks to the backing of the GHH Group. Truck manufacturing, launched as a highly promising new business field in 1915, was performing weakly. Just 370 commercial vehicles rolled off the line at the Nuremberg factory in 1921. M.A.N. briefly manufactured motorised ploughs, and in 1922 began coachbuilding on truck chassis to make open-top touring buses. The bus and coach market was growing rapidly during the mid-1920s, and M.A.N. sought to feed the rising demand.

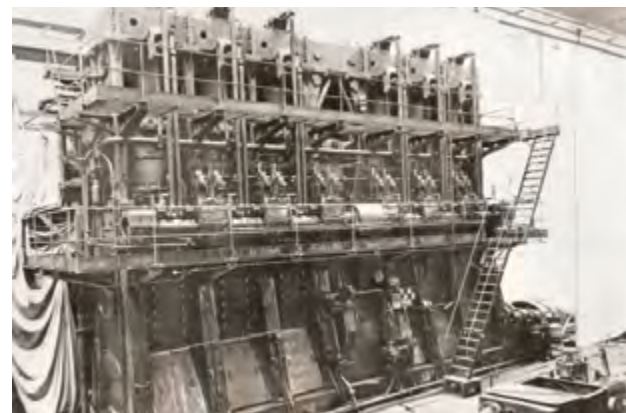
The breakthrough to smaller, more responsive truck engines only came with a decisive enhancement of the diesel engine involving direct injection of the fuel into the



FIRST MAN TRUCK WITH A DIESEL ENGINE  
AND DIRECT FUEL INJECTION

combustion chamber. Following on from its competitors Benz and Daimler, on December 15, 1923 the M.A.N. factory in Augsburg also succeeded in developing a functional truck featuring a diesel engine with direct injection. The first 4-tonne chain-driven truck made the journey from the engine plant in Augsburg to the truck factory in Nuremberg on March 13, 1924 in a time of five-and-a-half hours. And at the Berlin Automobile Exhibition in December 1924, the M.A.N. demonstration vehicle likewise proved its high levels of reliability. The first vehicle was delivered on November 11, 1925 to an Augsburg brewery, where it remained in continuous operation until 1942.

The registered office of the GHH holding company was relocated to Nuremberg after French troops had occupied its then home town of Oberhausen on January 11, 1923.



TWO-STROKE LARGE DIESEL ENGINE

The commercial development of machinery manufacturing failed to keep pace with the growing importance of M.A.N. however. In 1925 in Nuremberg, M.A.N. developed the first 5-tonne truck of its own on behalf of Kraftverkehrs-gesellschaft Bayern (KVB). The 55 hp model, designated KVB after the customer, was available with a petrol or diesel engine. Sales of 1,600 units made it one of the most successful trucks of the 1920s. Additionally, the M.A.N. Buses division produced a passenger-friendly low-entry bus known as the “Niederrahmen-Omnibus”, and in 1925 built the first diesel engine powered bus for the Reich postal service. The commercial vehicles business was not as fast-growing or profitable as had been hoped through the 1920s however.

Consequently, by 1932 the M.A.N. Group’s loss-making truck business was facing closure, despite a number of

attention-grabbing single projects such as the world's most powerful diesel truck, the 150 hp Type S1-H6. Meanwhile, in the 1932/33 financial year the M.A.N. Group's workforce decreased to 5,192 people, with the Nuremberg works employing just 1,633. The economic survival of the commercial vehicles business was secured by the introduction of production line assembly for the new 3-tonne truck, the Z1. The model saw rising demand which anticipated the gradual recovery of the global economy. From 1932/33 onwards, the diesel engine achieved parity with petrol, with the word "DIESEL" being proudly displayed on the M.A.N. radiator grille. In 1934 M.A.N. began developing turbochargers, which still form part of the company's product portfolio today in large engines for ships and power plant applications.

After overcoming the global financial crisis, M.A.N. succeeded in boosting sales of its diesel-powered commercial vehicles on an international scale, and expanded its product range with vehicles up to 10 tonnes payload capacity. From the mid-1930s onwards, M.A.N. trucks, buses and tractors were exclusively fitted with fuel-saving diesel engines. Following the Anschluss in 1938, which saw Austria become part of the German Reich, the GHH Group acquired a majority share in Austrian vehicle manufacturer Österreichische Automobil-Fabrik AG (ÖAF). Commercial vehicle production in the M.A.N. Group stagnated however. Truck-making accounted for only a fifth of total production output from the Nuremberg factory by 1938. Instead, as the Nazi regime boosted its armaments industry, M.A.N. switched to the production of tanks and submarine engines. It also entered into a contract with the German Navy to construct a new, taxpayer-funded engine plant in Hamburg.

In the post-war era, the GHH Group shrank due to the Allies' divestiture policy. As a result, the machinery manufacturing business gained in importance relative to the mining, iron and steel industries. The Allies imposed strict restrictions on M.A.N.'s engine-building operation, but it did not, as feared, have to be dismantled. Commercial vehicle production was relaunched under US control in July 1945. As early as July 14th, 1945, the US 3rd Army issued M.A.N. with a permit to service US military vehicles and to manufacture a 5-tonne truck which was urgently needed to support reconstruction efforts. The increasing workforce saw truck output rise to 303 units, while at the same time M.A.N. began expanding its range of buses and tractors. By 1950, truck output from the Nuremberg factory had reached 1,440 units. Demand for trucks grew more rapidly than production capacity.

The major demand both within Germany and internationally for large diesel engines, steam power plants, rail vehicles and gas tanks triggered a growth surge for the M.A.N. Group. M.A.N. launched new innovations in engine-building too. At the 1951 Frankfurt Motor Show, the company presented the first turbo-diesel engine for commercial vehicles. It also launched its new F8 model, a truck optionally featuring an 8.3 or 10 tonne payload capacity, with an 8-cylinder engine developing 180 hp and attaining a top speed of 60 km/h, designed for long-distance road freight. The company also launched new products in its machinery business, including the axial compressor, first delivered in 1950, and the first screw-type compressor.



THE MOST POWERFUL DIESEL TRUCK IN THE WORLD

M.A.N. was looking to grow, and to that end in 1955 acquired the site of the former BMW motor works in Allach near Munich, which had been confiscated and quickly cleared by the US Forces in 1945. By targeted investments, production capacity was increased five times over, so in the same year, 1955, truck production was consolidated in Munich, while diesel engine making remained in Nuremberg. This enabled the truck business to grow further. The Type 400, a 4.5 tonne 115 hp truck launched in 1955, was the first new model to be developed in full by M.A.N. The central-ball fuel injection method was characterised by quiet engine running and greatly reduced fuel consumption, and from 1963 onwards was refined into the high-performance central-ball technique for heavy-duty trucks. This provided the company with an innovative edge. The 6-cylinder diesel



RAILBUS PRODUCTION

engine featuring central-ball fuel injection remained the benchmark for fuel-saving commercial vehicle engines for decades, and was licensed by M.A.N. to 15 companies worldwide. In 1955, Deggendorfer Werft und Eisenbau GmbH (DWE), an inland ship building specialist which had been part of the GHH Group since 1924, began making pressure-tube reactors for the chemical and petrochemical industries. Today DWE, whose products in that sector are world market leaders, is a part of MAN Diesel & Turbo.

By the time the thirty-thousandth truck rolled off the production line in 1960, M.A.N. was operating more than 33 service centres and parts stores, and had over 100 contract partners in Germany. In the same year, the M.A.N. plants in Augsburg, Nuremberg, Munich, Gustavsburg and Hamburg





TURBOCOMPRESSOR

employed a total of 32,470 people. In 1961 the M.A.N. Group generated sales of DM 1.13 billion, with DM 440 million – or almost 40 percent – attributable to the Commercial Vehicles division. M.A.N. was the strongest unit and key driver of innovation within the GHH concern.

In the course of a reorganisation of GHH's corporate strategy, engineering operations were consolidated in M.A.N., which in turn saw substantial growth on the commercial vehicles market. M.A.N. added to its in-house commercial vehicles range with vehicles featuring more powerful diesel engines and larger load capacities. It was focused on the production of trucks and buses, and as a result its tractor business was sold off in 1963.

In 1970, commercial vehicle sales for the first time surpassed the one billion DM, boosted by internationalisation and an expansion of truck production. In 1966 M.A.N. launched a bus assembly plant in Penzberg, Bavaria, and in 1967 opened a factory with initial annual capacity for 300 vehicles in Istanbul. In 1974 M.A.N. took over an assembly plant in Pinetown near Durban, South Africa, which had been established by the local M.A.N. importer in 1962. The commercial vehicles business was expanded in 1971 by the full acquisition of Austrian company Österreichische Automobil Fabrik AG, which shortly before had itself taken over long-standing Vienna-based truck manufacturer Gräf & Stift.

Braunschweig-based commercial vehicles company Büssing was acquired in 1971/72 based on a swap transaction with the state-owned Salzgitter AG concern: GHH withdrew from the shipbuilding industry, disposing of its shipyard assets to Salzgitter AG, while in return GHH unit M.A.N. took over the Büssing business through a gradual acquisition process. Büssing had been founded in 1903 by the entrepreneur Heinrich Büssing from the Nordsteimke district of what is today Wolfsburg. By 1968 the business had accumulated an 18.7 percent share of the German truck market over 8 tonnes gross vehicle weight rating, yet was too small to avoid being swallowed up. M.A.N. not only acquired know-how in underfloor engined trucks, but by its integration of the works in Salzgitter also substantially enlarged its production capacities. A visible sign of this acquisition was the heraldic symbol of the House of Guelf, the Brunswick (Braunschweig) lion, which was mounted on the radiator grilles of M.A.N. vehicles with equal prominence directly beneath the M.A.N. logo.



The link to Lower Saxony was also intensified by the agreement with Volkswagenwerk AG in 1977 concerning the joint, pro rata development and production of a truck series with gross vehicle weight ratings from 6 to 9 tonnes. This represented a new attempt on the part of M.A.N. to penetrate the lower-end market segment. Volkswagen's aim for its part was to expand its range of light commercial vehicles further up the weight range. M.A.N. provided the know-how of its powerful yet economical diesel engines as well as designing the front axle, steering, suspension, brakes and wheels. Volkswagen contributed its production engineering resources and extensive international distribution network. The G series of 7.5 tonne trucks developed between 90 and 136 hp, designed on the basis of the Volkswagen LT, was launched in 1979. A total of 72,000 units of the vehicle were sold through to 1993, with one quarter being made at the M.A.N. plant in Salzgitter and three quarters at Volkswagen's Hanover plant.

The M.A.N. large diesel engines business saw a major development in 1980 with its acquisition of Danish company Burmeister & Wain Diesel A/S. As a result, MAN today has over 80 percent of the world market in two-stroke diesel engines fitted in tankers and large container ships.

The merger of M.A.N. into the GHH concern to create MAN Aktiengesellschaft in 1986 formalised what had long been commercial reality: MAN was the Group's primary earner, employing three quarters of its workforce. Its share of total Group business was rising steadily, and promised further growth, which was now to be managed from the company's headquarters in Munich instead of from Oberhausen. At the same time, the new MAN Group reduced its activities in other business fields, focusing on commercial vehicles, industrial



G SERIES

services, printing machines, diesel engines, and machinery and plant manufacture, culminating in the creation of the Commercial Vehicles and Power Engineering divisions. A key area of focus in the manufacture of fuel-saving drive and transport solutions since the mid-1980s had been the development of electric buses and hybrid drive systems involving the recuperation of braking energy to generate driving power. It was a principle which MAN went on to integrate into the development of a number of bus models. From 1988 onwards, the brand focused on three model series in the light, medium and heavy-duty truck sectors, organising its internal structures around the German locations of Munich, Nuremberg, Penzberg, Gustavsburg and Salzgitter. In the same year, MAN began developing industrial gas turbines.



CONSTELLATION SERIES AND MAN TRUCK

MAN responded to the increasing globalisation of commercial vehicle markets with a number of acquisitions towards the end of the millennium: In 1989 it added a further Austrian manufacturer, Steyr. All activities in Austria since 2004 have been consolidated in MAN Nutzfahrzeuge Österreich AG. In 1999 Polish commercial vehicle manufacturer STAR was integrated into the Group. In the year 2000, MAN acquired the Neoplan brand from Stuttgart coach manufacturer Gottlob Auwärter, as well as the diesel engines division of British company Alstom Engines Ltd.; in 2001 followed British manufacturer ERF and Swiss company Sulzer Turbo AG.

A new series of heavy-duty trucks designated Trucknology Generation type A, or TGA for short, set new standards in the industry in 2000. Model series for long-distance transport, heavy-duty traction and construction site traffic, as well as regional and supra-regional transport services followed. MAN consolidated its technology leadership in engine and component development for commercial vehicles with the introduction of Common Rail diesel technology for trucks in 2004 and in 2005 the Hydrodrive, a selectable four-wheel drive system. The early years of the new millennium were also marked by technical and strategic advances in the large diesel engine and turbo sectors. In 2003 the company supplied a compressor string for what was at the time the world's largest gas-to-liquid plant. In 2005 it began fitting Common Rail systems in large four-stroke diesel engines.

Following the 250th anniversary of the business in 2008, on December 15th of that year MAN acquired from Volkswagen Aktiengesellschaft the Brazilian operations of Volkswagen Trucks & Buses, and now maintains the great success of that business through the Constellation series and the company's buses under the umbrella of MAN Latin America. MAN entered the key Chinese market by establishing its own turbo-machine plant at Changzhou in 2008. This was followed in 2009 by the launch of the Sitrak brand, originating from a strategic investment by MAN in Chinese truck manufacturer Sinotruk. The MAN Latin America unit represents one of the four pillars of the business, alongside MAN Truck & Bus, special gear systems maker Renk AG and MAN Diesel & Turbo, all operating under the umbrella of the European stock corporation MAN SE established in 2009.



MAN PRODUCT FAMILY

In 2012 MAN refreshed its TG model series and launched the Neoplan Jetliner luxury-class coach. The global downturn in demand saw truck and bus sales decrease to 120,000 units in 2014, with sales revenues falling to 14.2 billion euro. The MAN brand returned an operating profit of 384 million euro.



MAN CONCEPTS

Under the control of Volkswagen Aktiengesellschaft, which had acquired a strategic 15.06 percent holding in MAN SE on October 3, 2006 and on November 9, 2011 became its majority shareholder, MAN is forging a strong alliance with Scania and the Volkswagen Commercial Vehicles brand in order to achieve further success on global markets. With the various TG models and the buses of the MAN and Neoplan brands, MAN offers a broad product range, while its Euro 6-compliant engines set new standards. It combines optimum user comfort, ergonomics and value with maximum economy. MAN is thus a key player in keeping freight and passenger traffic on the move.

## Porsche

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The sports car brand Porsche is literally a big noise in the automotive world. The typical sound of its high-performance engines embodies the ultimate in power and dynamics. The make takes its name from world-famous designer Ferdinand Porsche. With sports car models such as the 356 and 911, and race cars such as the 550 Spyder and the 917, the Porsche family business has created automotive icons of pure passion. Porsche vehicles built in Zuffenhausen and Leipzig are in high demand all over the world, and represent a genuine dream for many automobile lovers. Since August 1, 2012 the high-performance brand has been operating under the umbrella of the Volkswagen Group. The acquisition of the remaining 50.1 percent of shares in Dr. Ing. h.c. F. Porsche AG by Porsche SE created an integrated automotive concern which had been instigated by an agreement in principle signed on August 13, 2009.

It marked the convergence of two companies which had had many points of contact throughout their history. Ferdinand Porsche (1875-1951) was an innovator whose ground-breaking designs made him one of the great figures in the automotive history of the first half of the 20th century. He began looking into the construction of electric vehicles as early as 1898. The Lohner-Porsche featuring a wheel hub mounted motor had a range of 50 kilometres, and was a big hit at the 1900 Exposition Universelle in Paris. In the same year, Porsche developed the Semper Vivus, the world's first functional hybrid vehicle to go into production. Porsche laid the foundations for his international reputation during his time as technical director of Austro-Daimler from 1906 onwards, with designs including the "Prinz Heinrich" car, the "Landwehr-Train" off-road hybrid vehicle and the "Sascha" light-weight racing car. After moving to be technical director

of the Daimler motor company in Stuttgart in 1923, Porsche built sports cars with large-capacity supercharged engines. However, the cost of the high-tech development work ran contrary to the economy drive imposed following the merger of Daimler and Benz in 1926. Porsche subsequently left the business in 1928, and in 1929 joined Austrian motor company Steyr.

In December 1930, in the midst of the global financial crisis, the 55-year-old Porsche set up an independent business. On April 25th, 1931, Porsche founded the company "Dr. Ing. h. c. F. Porsche GmbH" in Stuttgart together with his son-in-law Anton Piëch and Adolf Rosenberger, the latter of whom was to resign again in 1933. The newly established business offered engine and vehicle design and consultancy services, and initially had a staff of 12 people. A key expression of the company's innovative design capability was the 1931 patenting of torsion bar suspension.

After having undertaken a number of minor projects, in 1933 the design company was awarded the lucrative contract to build a race car for Auto Union. The P-type, weighing 750 kilograms and featuring a mid-mounted engine, was Porsche's first grand-prix car design, and assured the continued existence of the business. It was followed by a contract from NSU to develop a small car, the Type 32, which with its air-cooled rear-mounted engine, torsion bar suspension and characteristic rounded rear end design exhibited elements of the later Volkswagen. The idea of a low-cost small car for the mass market fascinated Porsche who – like many other designers and engineers at the time – looked to the mass motorisation taking place in the USA. In his "Memorandum on the construction of a



W30 IN FRONT OF THE PORSCHE DESIGN OFFICE  
IN ZUFFENHAUSEN NEAR STUTT GART

German People's Car", submitted to the Reich Ministry of Transport on January 17, 1934, Porsche set forth his plan for a fully practical mass-market vehicle. As the "People's Car" project was backed by the Nazi regime headed by Adolf Hitler, it was taken up by the Reich Automotive Industry Association (RDA), which on June 22, 1934 awarded the independent Porsche design consultancy a contract to develop and build prototypes. The Porsche team solved the technical problems, and Porsche himself became one of the main directors of the company known as "Gesellschaft zur

Vorbereitung des Deutschen Volkswagens mbH" founded in 1937. Porsche's design consultancy, in 1937 renamed Dr. Ing. h.c. F. Porsche KG, acted as an outsourced research and development function for Volkswagenwerk GmbH.

In 1938/39, Porsche KG developed the Type 64 "Berlin-Rome car", an in-house sports car concept which is considered to be the grandfather of the later Porsche sports car family. Porsche KG also designed tractors for agriculture, and later tanks and other military vehicles. Bombing raids





ASSEMBLY IN ZUFFENHAUSEN

on Stuttgart in 1944 drove the management to relocate the design office to a former sawmill in Gmünd in the Carinthia region of Austria and the material stores to a flying school in Zell am See, which also provided the location of the Porsche family seat, known as the “Schüttgut”.

After the war, the design consultancy initially kept its head above water with repair jobs and the production of basic agricultural machinery. Ferry Porsche (1909-1998) developed the first car under the company’s own name, the Porsche 356, created as part of the Porsche Konstruktionen GmbH company working in British-occupied Carinthia. The first self-built Porsche sports car, with chassis number 356 001, rolled out of the workshops in Gmünd on June 8, 1948.

Featuring an aluminium body, round headlights and gently sweeping curves, in a coupe or cabriolet variant, the model appealed to the tastes of an exclusive circle of buyers among the aristocracy and moneyed elites. The first race victory of the light-weight roadster, weighing just 585 kilograms, at the Innsbruck road race on July 1, 1948 attracted great attention to Porsche. It laid the foundation for the unmistakable sporting image of the brand. Just 52 hand-crafted exemplars of the model had been created by 1950. In September 1948, the relationship with Volkswagenwerk GmbH was formalised by a contract stipulating licence payments for mass production of the Volkswagen saloon designed by Porsche, as well as the supply of components and “close collaboration” on development work. Porsche was additionally granted access to the Volkswagen sales and service network.

It was only following the return of the complete business to Stuttgart that production began to take off. Porsche took its first steps on the key export market in the Netherlands, where Volkswagen importer Ben Pon sold the company’s sports cars, and in Switzerland, where the first Porsche showroom was opened in Zurich in the Winter of 1948. Following the 1950 Paris Motor Show, Porsche succeeded in cracking the US market. Presented in the showroom of Volkswagen importer Maximilian E. Hoffman on New York’s Park Avenue, the distinctive styling of the 356 marked it out clearly from the competition, and proved a great hit with buyers. By 1965, almost 78,000 units of the 356 model had been made. In its final year of production, three quarters of all output went to the USA, where Porsche had been operating a distributorship since 1955.

Key factors in the huge demand were Porsche's motorsport victories in the Le Mans 24 Hour race, the Mille Miglia in Italy, and the Carrera Panamericana in Mexico. By the mid-1950s, Porsche had already achieved 400 race victories. Up until today, that figure has surpassed 28,000. Motorsport provided Porsche with an experimental test bed for new technology, and served as a promotional tool for its production models. The make's reliability on the race track conveyed a promise of quality to customers of the production sports cars which Porsche backed with low warranty costs of just DM 40 for the 356 C model. In 1960, the sports car-maker's sales topped DM 100 million for the first time. The Stuttgart plant was extended. Porsche expanded its production capacity and, among other moves, began having bodies made by coachbuilder Karmann in Osnabrück.

The search for a successor to the top-selling 356 model began in 1957. The plan was to keep the air-cooled boxer engine in the rear, but to deliver more power and smoother running, along with improved road-holding and additional interior and boot space. In 1959, Ferdinand Alexander Porsche presented the 754 T7, a prototype design for a 2+2-seater model from which a fastback coupe, with the project model name 901, featuring a new frame, running gear and drive system emerged. The air-cooled 6-cylinder boxer engine had been developed under the supervision of Ferdinand Porsche's grandson Ferdinand Piëch.

Following its launch in September 1964, the new 911 model was to become the cornerstone of the Porsche brand. Seven generations of the model have been built at the facility in Zuffenhausen near Stuttgart since start of production. The 911 has become a by-word for fulfilment of the auto-



911 TARGA

motive dream; as elegant as it is exciting to drive and ride in. Getting the new model series into production was a real challenge for the company however. Porsche invested DM 15 million in purchasing a body plant, though to do so it had to withdraw from Formula 1, thereby giving up part of its motorsport activities. The growing reputation of the Porsche brand was further boosted by the race successes of the Porsche 917. Developed under the supervision of Ferdinand Piëch, featuring a 12-cylinder V-configuration engine with an initial 520 hp power output, its many triumphs from 1969 onwards included a string of victories at Le Mans.

A proposed ban on convertibles on the key US market in 1965 threatened to hit Porsche hard. The sports car-maker responded by building the 911 Targa, fitted with an anti-roll bar as standard. In 1967 Porsche cleared more selling hurdles by becoming the first European car-maker to meet the more stringent US emission standards.





VW-PORSCHE 914

Porsche also intensified its co-operation with Volkswagen. In 1966, the two companies agreed to develop a successor to the outdated Volkswagen Karmann Ghia sports coupe. The plan was to position what was to become the VW-Porsche 914 below the 911 segment and to make the model compatible with both manufacturers' selling programmes. To sell the second Porsche model series, the VW-Porsche Vertriebsgesellschaft was established, with both manufacturers owning an equal share in the sales company. The so-called "Volks Porsche" launched in 1969 only partially met its selling expectations however. Whereas the VW-Porsche 914 with the 6-cylinder engine sold slowly, demand for the much cheaper 4-cylinder engine variant was high: the 914/4 sold 13,000 units in 1970 alone.

The transformation of Porsche into a stock corporation with effect from August 1, 1972 fundamentally altered the corporate structure. The Piëch and Porsche families who owned the business decided that the family members would withdraw from operational control, leaving it in the hands of appointed management. From that time on, the families fulfilled their role through the Supervisory Board, which for many years was chaired by Ferry Porsche. The finances of the stock corporation remained under severe pressure, among other factors resulting from the construction of a new head office administration building in the Tammerfeld district of Ludwigsburg. Bans on Sunday driving and speed restrictions following the oil price shock in 1973 were causing uncertainty among car-buyers in Germany. Porsche cut its daily production from 72 to 50 units and introduced short-time working, though it did initiate an expansion of its model range. With the G-series, Porsche initially placed its faith in a new generation of the 911 featuring safety bumpers, integrated head restraints, steering wheel mounted airbag modules and automatic three-point seat belts. At the high-point of the recession, in 1974, Porsche launched its 911 Turbo 3.0 Coupe super-sports car, developed in close conjunction with the company's motorsport activities. The Porsche with the distinctive rear wing was initially planned as a small-lot series. But the turbocharged model featuring internally vented disk brakes and offering everyday practicality combined with luxury became a surprise hit. Porsche built 2,850 units of the model in its first three years after launch, enabling the business to power strongly out of crisis.

At the bottom end of the model range, in 1976 the new 924 model replaced the VW-Porsche 914, which ceased production the same year. As in the case of the predecessor model, a collaboration with Volkswagen had been targeted in order to cut costs based on economies of scale in component supply. Volkswagen stopped the joint project in 1975 in order to focus its energies on the new generation of models from the Polo to the Passat, and transferred the 924 model to Porsche. Launched independently as the Porsche 924, the car was made at Audi in Neckarsulm. The new entry-level Porsche broke with the traditional design concept. The 924 featured a water-cooled 4-cylinder front-mounted engine, with a trans-axle transmission sending the power to the rear wheels. In the 1976/77 financial year the 924 accounted for almost half of the company's total vehicle sales. By the time production was ended in 1988, 150,684 units of the model had been built.

In 1977, Porsche launched a third model series, positioned above the 911: the 928 luxury high-performance sports car. The 928, conceived under the supervision of Anatole Lapine as the successor to the 911, polarised the faithful Porsche customer base with its non-traditional design, moving away from the air-cooled rear-mounted boxer engine to rely on a front-mounted water-cooled 8-cylinder engine, as well as featuring rear wheel transmission, an aluminium chassis and a new rear axle.

After the second oil price shock in 1979, Porsche felt the pressure of competition on international car markets. Cheaper Japanese sports car models penetrating the key US market impacted on the Porsche 924. In 1979/80 Porsche saw its unit sales decline 19.7 percent, though sales reve-



944

nues held up. Porsche responded to the competitive pressures in 1981 by launching the 944, an economical 4-cylinder car conceived as a sophisticated entry-level model giving access to the brand and linking up the range between the 924 and the 911 SC. It touched a nerve among customers, and from January to September 1982 Porsche sold 4,000 units of the 944 alone. In 1983 the model accounted for 51 percent of its total vehicle sales.

Competitive pressures on international markets intensified during the 1980s. Porsche initially managed to keep well on track, achieving its fifth record year in succession in 1985/86, primarily thanks to its strong US business, with more than one in two of its vehicles being exported to the USA. Following the expiration of the agreement with



BOXTER S

Volkswagen of America Inc. on August 31, 1984, the newly established Porsche Cars North America Inc. began selling cars on its own behalf. By an issue of preference shares on May 4, 1984, Porsche procured additional capital for upgrading, and through to 1988 invested over a billion DM in new installations including an environmentally friendly paint shop and a state-of-the-art paint plant. The development centre in Weissach, home to Porsche's engineers since 1971, was extensively enlarged. It provided development work for both in-house and third-party vehicle production, including for Airbus, Lada and Volkswagen. In 1981, the developers presented a dual-clutch gearbox which for the first time permitted gear-shifting without interrupting the power flow, and from 1983 onwards was fitted in the Porsche 956.

The continual decline in sales beginning in 1985 and the drop in value of the US Dollar hit Porsche's export-led business hard. During 1987, sales fell from DM 3.567 billion to DM 2.482 billion. In the 1987/88 financial year, Porsche sold 18,614 cars fewer than in the previous year. A new Management Board attempted to counter the sales crisis with short-time working and redundancies. In 1990, Porsche was awarded a major outsourced production contract, assembling 10,479 Mercedes-Benz 500 E vehicles up to April 1995 on behalf of Mercedes-Benz AG at the former Porsche body plant in Zuffenhausen near Stuttgart. Porsche was not able to profit from the burgeoning boom following German reunification.

Consequently, the sustained sales crisis led the Management Board to initiate further tough cost-saving measures. The 1991/92 accounts showed a deficit of DM 68.5 million. Lean management and lean production delivered improvements in efficiency. The introduction of modular component kits saved money, as did more flexible, leaner processes, procedures and hierarchies, and implementation of the Japanese Kaizen philosophy of continuous improvement. Nevertheless, the workforce had to be reduced by 1,850 people up until 1993.

Porsche achieved turnaround in 1995: In the roadster segment, the sports car-maker launched a new model series in 1996 with the two-seater Boxster, which was followed in 2005 by the mid-engined Cayman coupe. The third generation of the 911, the 993, stabilised sales and earnings, though the US business remained weak. Porsche's model and pricing policy, its lean production and new brand image presentation brought it back on the road to success. The 911



CARRERA 4 GTS COUPE AND  
CARRERA 4 GTS CONVERTIBLE



LEIPZIG PLANT

Carrera attracted an extraordinarily large number of new customers. The one millionth Porsche rolled off the production line on July 15, 1996.

The new corporate strategy was founded on two independent model series. The Boxster – a name combining the boxer engine and roadster design – enabled Porsche to attract younger customers in a segment below the 911 market, and also signalled a new marketing approach: To mark the launch of the Boxster in September 1996, Porsche invited some 2,000 dealers from 540 distribution centres to a large-scale event in Scottsdale, Arizona. Porsche's advertising experimented with new electronic forms, including a collaboration in the year 2000 with Electronic Arts to produce a dedicated version of the computer game "Need for Speed".



CAYENNE DIESEL

The Porsche era of the air-cooled engine ended in 1997. The fifth generation of the 911, the 996, was fitted with a water-cooled 4-valve, 6-cylinder boxer engine. The heart of the brand was adapted to customers' changing needs. In a range of model variants, designers emphasised comfort and safety alongside the sporty character of the brand. Exports again became a driver of growth, with almost 70 percent of production output going to North America. In the 1997/98 financial year Porsche marked a new record, achieving the best sales performance in the company's history. Porsche has regularly surpassed that record mark since.

The addition of a third model series to the product range – the Cayenne sports utility vehicle built in co-operation with Volkswagen – enabled Porsche to expand its production, opening a new plant in Leipzig in 2002. In August 2002, the Supervisory Board approved the introduction of a fourth





918 SPYDER

model series – a luxury Gran Turismo named the Panamera – which has been in production since 2009, likewise at the Leipzig plant.

The development of the business from a design consultancy to a globally successful sports car manufacturer has been documented since 2009 at the Porsche Museum. The spectacular new building incorporates all the know-how upon which the brand was founded, providing the opportunity to experience the icons of automobile history in the flesh. The ability to look back with a professional eye is part of the way in which the brand is sustained and continually enhanced by the company – a company whose own history began in 1948, but whose success is founded on the life's work of Ferdinand Porsche and his family.



PANAMERA S E-HYBRID

Tradition and progress form a strong combination as the foundation stones of the Porsche brand. With its plug-in hybrid drive for the Cayenne and Panamera models, the company is today building upon the engineering legacy of Ferdinand Porsche. In September 2013, the electrified 918 Spyder super-sports car became the first road-legal vehicle to complete the 20.6 kilometre Nordschleife circuit at the Nürburgring in less than seven minutes – in fact, six minutes and 57 seconds to be precise. The 887 hp powerhouse combines maximum driving dynamics with minimal fuel consumption, and in combined drive mode emits just 79 grams of CO<sub>2</sub> per kilometre. New drive systems and new models, such as the Macan, embody the company's ongoing strategy of producing sports cars to meet every customer need. Porsche is still powering ahead in the fast lane. With a workforce of 22,190 people, Porsche once again improves its performance in financial 2014, selling 190,000 vehicles, generating sales revenues of 17.2 billion euro, and achieving an operating profit of 2.718 billion euro.

## Scania

Volkswagen Aktiengesellschaft paved the way for the strategic restructuring and expansion of its truck business in April 2000 when it acquired 18.7 percent of the shares and 34 percent of the voting rights in Scania AB. The two companies were linked by a long-standing partnership. Scania had been Volkswagen's main importer in Sweden since 1948. And that was not the only consideration favouring a tie-up with the internationally renowned brand. Scania was one of the top truck manufacturers in Europe, and was regarded as the most profitable brand in the industry. Innovative, and a leader in the development of economical, low-emission engines, the company's product range included heavy trucks of 16 tonnes capacity and more, buses and coaches, as well as ship engines and industrial motors.

In 2007 Volkswagen increased its share of the voting rights to 37.4 percent, becoming the second major shareholder in Scania alongside the Wallenberg family of Swedish industrialists. An agreement with the Wallenbergs to acquire their Scania shares – held through Investor AB and various charitable foundations – was reached in March 2008. With the approval of the European Commission, in July 2008 Volkswagen Aktiengesellschaft increased its share of the voting rights to around 69 percent and integrated Scania as the ninth independently operating brand within the Volkswagen Group.

Scania's creation had in fact originally also stemmed from the merger of two businesses, both of whom were among the pioneers of Swedish truck-making. The older of the two, Vagnfabriks-Aktiebolaget i Södertälje (Vabis), founded on December 11, 1891 in Södertälje, initially built wagons for the expanding rail network. In 1897, the "Vagnfabrik"



VABIS PLANT IN SÖDERTÄLJE

(wagon factory) began making vehicles and engines, and presented its first truck at the Stockholm Automobile Exhibition of 1903. Declining demand and falling prices in the railway wagon business on the one hand and the capital invested to build a new factory on the other meant that the business made a loss for a number of years. More commercial success was enjoyed by the other predecessor business, the existing Malmö-based subsidiary of Maskinfabriks-aktiebolaget Scania, which in 1902/03 launched an initial series of five vehicles onto the market under the model name Scania Type A. Instead of making costly new components, Scania's vehicle production used components from other manufacturers, including from Germany, and its business was prospering. While in 1910 Scania was sounding out the possibilities for expanding its production, the Vabis parent company in Södertälje had decided to dispose of its capital-intensive automotive division.





BUS

On March 18, 1911, the two merged under the umbrella of the newly established stock corporation AB Scania-Vabis. The new company's head office was subsequently relocated from Malmö to Södertälje, south west of Stockholm, in 1913. The arms race and restrictions on imports during the period brought Scania-Vabis additional orders, including for military vehicles and aircraft engines, which saw profits surge from 50,000 to 1.7 million Swedish crowns between 1911 and 1918. That expansion came to an abrupt end after the First World War. The severe recession, the great strike of 1919 and the dramatic increase in competition on the company's home market, which was being swamped by cheaper foreign vehicles, threw Scania-Vabis into a crisis which threatened its very existence. The dream of creating a major international corporation was burst: A Danish subsidiary was sold off in 1921; a factory in Norway was shut down; and the iron and steel works acquired during the war years went bankrupt.



2.5 TONNE TRUCK

The groundwork for financial consolidation was laid in December 1921 with the founding of a new company which adopted the name and assets of the old one. Two key strategic decisions changed the corporate profile: By 1927, vehicle production had been consolidated in Södertälje, and in 1929 car production was discontinued. The main driver of the upturn through the 1920s was the advancement of passenger and freight transport. A bulk order from the Stockholm transport corporation initiated the bus era at Scania-Vabis, and from 1923 to 1929 the company built and sold some 350 buses. Bus production, together with engine-building, also dominated the company's development over the next decade, and in 1932 more buses than trucks were produced for the first time. The key factor in this trend was the "Bulldog bus" launched the previous year, which had its engine and driver's cockpit integrated into the passenger compartment, and was to become the dominant bus model in Sweden.

Growth in the truck business was less strong. Scania-Vabis was unable to compete on the market for lighter standard trucks, as it did not have the machinery and technical expertise to build a mass production resource. So the company concentrated on making heavy trucks between 1.5 and 4 tonnes, and in 1925 achieved a breakthrough in the segment with a “high-speed” truck capable of reaching 40 kilometres per hour – double the top speed of the existing model range. Scania-Vabis also made a name for itself as a maker of special-purpose vehicles with hydraulic tippers and automatic sand spreaders. The company sold 179 trucks in 1931.

Even at that time, the successes in truck-building were linked closely to the innovations being made in engine development, which led to the opening of a new business field. A first six-cylinder petrol engine in 1923 established a new product line in industrial and marine engines. A few years later, Scania-Vabis launched an engine range which could run on different fuels and created the basis for the later modular construction method. Scania-Vabis made its biggest leap in engine development with the so-called Hesselmann engine. Built under licence starting in 1932, it became the starting point for the design of an in-house diesel engine. The compact six-cylinder pre-chamber diesel engine with a 7.7 litre capacity and developing 120 horsepower, capable of running on petrol, raw oil or diesel oil, was fitted in the company’s buses and trucks from 1936 onwards, and was also sold to other Swedish and international manufacturers. Most Scania-Vabis vehicles were still one-offs. Only as production began to rise during the mid-1930s was extensive rationalisation instigated, entailing the introduction of new tools and working methods. In its



ENGINE ASSEMBLY IN SÖDERTÄLJE

engine business, from 1939/40 the company progressed to building standardised units with largely identical components. At the same time, it expanded production capacities by building two factories. The Second World War focused operations on the production of military vehicles. By 1943, they were taking up all the company’s capacity, and by 1945 the workforce had increased to around 1,000.

In the post-war years, Scania-Vabis laid the foundations for its subsequent commercial success. Responding to dealers’ wishes, the company added a car to its product portfolio. In fact, they had long been interested in the Volkswagen, and in July 1948 Scania-Vabis signed an agreement with

Volkswagenwerk GmbH to become its importer. The following year, the Scania-Vabis distribution network sold 317 Volkswagen saloons to Swedish customers. Truck and bus production had tripled to 1,672 units since 1945. Profits had shot up to 1.3 million crowns. However, Scania-Vabis's involvement in armaments production meant that it was no longer at the leading edge of technical progress, especially in diesel technology. The company acquired the necessary know-how transfer in 1947 through a co-operation agreement with Leyland Motors Ltd.

Scania made the transition to direct injection in 1949 with its "400,000 kilometre engine", which cut fuel consumption, needed less maintenance, and improved the vehicles' pulling power and operational reliability. In 1951 it brought out the 205 horsepower turbo version for railbuses and ships. Scania-Vabis also enhanced the competitiveness of its products during the 1950s by introducing a state-of-the-art synchro gearbox, fitting power steering and compressed air brakes as standard, and with a new rear axle.

The business was boosted not only by the technical advances but also by the operational innovations introduced in 1949: The "conference method" involved all designers in product development decision-making, the "component philosophy" promoted the standardisation of products, while group working on the assembly lines improved productivity. It was on this basis that Scania-Vabis grew into an export-oriented business. It opened up 17 new export markets during the 1950s alone. International business became the driver of growth. By 1959, vehicle production had increased to 4,881, more than half of which were exported. The most profit on the company's home market during this period, however,



ENGINE ASSEMBLY AT THE ZWOLLE PLANT

came from sales of the Volkswagen saloon. They acted as a catalyst in growing the dealer network, and generated much of the financial resources for the strong expansion of the business during the 1960s. The subsidiary in Brazil founded in 1957 built Scania-Vabis's first production facility outside of Sweden in 1962. In 1964, assembly began at the new plant at Zwolle in the Netherlands. The factory at Meppel – likewise in the Netherlands – and the Swedish plants at Oskarshamn and Katrineholm were added by way of acquisition in 1966/67. Scania-Vabis also created the foundations for further growth by expanding the mother plant in Södertälje and constructing new factories in Sweden.



V8 TURBO-DIESEL ENGINE

The company's turbo engines provided it with its key competitive edge. "More power, fewer revs" was the designers' watchword in attempts to achieve higher efficiency while at the same time cutting fuel consumption and emissions and reducing running noise. Competition with Volvo boosted the pace of research and development progress, which culminated in the 350 horsepower V8 turbo-diesel launched in 1969 – the most powerful truck engine on the European market at the time. Another key area of Scania-Vabis's development focus was on constructional design improvements, and in 1968 the company launched a new generation of front-wheel drive trucks. The tipping cab was more spacious and easier to get into, and the truck's handling was improved.

Having merged with Saab to form Saab-Scania AB in 1969, from 1972 until the two companies parted ways in 1995 Scania was run as an independent business unit of the Group's Automotive division. The first decade under the new corporate umbrella was marked by international growth and the development of a modular product range. Factory capacities in the Netherlands and Brazil were expanded. In early 1976, Scania opened a facility in Tucumán in northern Argentina to make gearboxes, among other products. Brazil was Scania's biggest selling market in 1977. From 1979 to 1981, the brand sold as many as 4,000 vehicles a year in Iraq. By 1979, exports accounted for almost 90 percent of total sales.

Scania launched its new truck range in 1980. Not just the engines, gearboxes and axles, but also the frames and cabs, had been developed as a modular system. For the trucks weighing between 16 and 36 tonnes there were three engines, three classes of chassis and four cab models, enabling them to be tailored exactly to customers' transport needs. The attractive design came from Giorgio Giugiaro, and was complemented by outstanding ergonomic qualities which set ground-breaking new standards in terms of safety and comfort for the driver. Scania's customisable range of trucks was complemented by special maintenance programmes, developed jointly with its fleet customers, which helped avoid off-the-road times due to breakdowns.

The modular concept speeded up new developments and reduced manufacturing costs. Additionally, Scania's "Series 2" provided just the right response to the transport industry's rising demands in terms of the vehicles' operational reliability and economy. More cost savings for customers

were brought by the turbo-compound engine launched in 1991, which utilised the energy in the exhaust gases by way of a “power-recovery turbine”. This boosted power while cutting fuel consumption, which was reduced even further by the aerodynamic Streamline cabs. With its new generation of trucks, Scania increased vehicle sales between 1980 and 1989 from 26,566 to 35,602 units, including 3,884 buses and coaches.

The modular component kit system is still today the foundation stone of the company’s success. Scania established the second key precondition for increasing profitability and growth during the 1990s by building up a global production system of specialised and logistically interlinked plants. Scania focused its European component production primarily in Sweden: Cab production was relocated from Meppel in the Netherlands to Oskarshamn, while engine and axle production – including the research and development function – was moved from Zwolle to Södertälje and Falun. In return, Dutch subsidiary Scania Nederland B.V. expanded the capacity of the Zwolle plant. It has been the central location for final assembly of trucks since 1989. As labour-intensive body assembly was hampering economies of scale, in 1991/92 a new assembly plant was built at Angers in France. Scania subsequently restructured its production facilities in Latin America based on the same model. The restructuring provided major growth momentum. Sales increased during the 1990s from around 35,000 vehicles to 50,000. Having parted from Saab in 1995 and been renamed Scania AB, the company was listed on the Stockholm Stock Market in 1996.



CAB PRODUCTION IN OSKARSHAMN

In the new millennium, Scania built further on its leadership in the development of economical, environmentally friendly engines. In 2001, the brand presented its 12-litre turbo-compound engine, featuring a newly developed high-pressure fuel injection system which greatly reduced fine dust emissions. The company’s engine developers also succeeded in transferring the diesel-ethanol technology used in city buses since 1989 to truck engines. The first heavy truck powered by a diesel-ethanol engine and capable of running on biofuel made its debut at the IAA Commercial Vehicles Show in Hanover in September 2008.





R SERIES

The new Volkswagen Group brand is proving to be a good investment not merely by virtue of its innovative strength. Scania's approximately 73,800 truck and bus sales in 2008 were almost on a par with the previous year's record level. Demand collapsed in the wake of the financial crisis in 2009. Sales declined to 43,443 units, as a result of which production and costs had to be adjusted by reductions in working hours, employee training, and postponement of capital investments. International markets have been fluctuating ever since. In 2011, sales grew by 84.4 percent to 80,108 units, but then fell back again by 16 percent to 67,000 in 2012. Deliveries of 82,208 units in 2014 were slightly down against the previous year's level. The compa-



PLANT IN SÖDERTÄLJE

ny employed 35,925 people. Scania is recognised as being highly profitable, and in 2014 generated sales revenues of 10.3 billion euro and an operating profit of 955 million euro. Its commercial success is founded on innovative products such as the V8 truck series launched in 2010 which, with power output of up to 730 hp and maximum torque of 3,500 Nm, is the most powerful in the world. The Euro 6-compliant generation of engines launched in 2011 combines technical solutions for cutting emissions with supreme fuel efficiency. With the integration of Scania, the Volkswagen Group has refocused its heavy commercial vehicles business. The jewel in the crown of Swedish industry can look forward to a brilliant future.

## Seat



SEAT BARCELONA

Seat came to the attention of the Volkswagen Group as a potential partner in May 1980. Shareholder Fiat, which had been a licensor and technological impetus for the Seat model range, surprisingly withdrew from the Spanish company – with grave consequences. Seat suddenly lost its development capacity and its international sales channels. Furthermore, the product program based on the Fiat model range was in need of a thorough make-over. To start out anew, Seat required a partner with innovative product technology and access to international car markets. So the Volkswagen Group was more than welcome in 1981 when it commenced negotiations with Seat concerning co-operation to produce the Polo/Derby model series in Spain. From a strategic viewpoint, Volkswagen had the chance to expand its to date marginal position on a West European market experiencing

above-average growth and catch up before competition got tougher as Spain moved towards membership of the EU planned for 1984.

In the event of a co-operation agreement, Volkswagen could benefit from Spain's largest passenger car sales organisation with over 1,000 authorised dealers. Another argument in favour of co-operation was the strategically important access to a production location with relatively low wage costs which could be used in the longer term as a low-cost assembly plant for the Polo. It was precisely in this vehicle class that high production costs in Germany impacted on the price competitiveness of models on the European volume markets. The fact that the well-qualified Seat workforce had thirty years of experience in building cars was an added advantage.



Audi AG also benefited from the co-operation agreement concluded on September 30, 1982 because Seat's foreign exchange quota permitted duty-free imports of Audi models. In return, Volkswagen responded to a request from the Spanish car-maker for a licence to produce the Passat/Santana series, and the first vehicles rolled off the assembly lines at the Barcelona plant in Autumn 1983. The Pamplona factory began producing the Polo for sale in Spain and selected other European markets in Spring 1984. Volkswagen supplied the engines, gearboxes and axle and steering components for both models. Seat produced the steel sheets in its own press shop. All other parts came from local automotive suppliers. The co-operation benefited both sides. The Spanish manufacturer's model range, sales and capacity utilisation improved to such an extent that the Spanish government offered the Volkswagen Group the chance to take over Seat in Autumn 1984. The Volkswagen Group came off well too. Sales through Seat dealers had given the company access to the Spanish market and significantly improved the presence of the Volkswagen and Audi brands on it. At the same time, production at the Pamplona plant brought the prospect of building the Polo more cheaply than in Wolfsburg. To harness the potential offered by the Spanish facilities and to equip the Seat brand for international competition, Volkswagen saw a need for financial consolidation, streamlining of the model range, modernisation of production plant and the creation of a European sales organisation. The efforts already undertaken by Seat gave cause for optimism.



SEAT 600

Volkswagen AG initially acquired a 51 percent stake on June 18, 1986, thus in effect assuming control of the state-owned company with its workforce of some 23,600 at the plants in Barcelona and Pamplona as well as the research and development centre in Martorell and the gearbox facility in Prat de Llobregat. Seat was integrated into the Volkswagen Group as an independent brand, and at the end of 1986 the stake was increased to 75 percent.

This marked the beginning of a new chapter in the 30-year history of the Spanish car-maker, which had begun as a state-run industrialisation and motorisation project under the Franco regime. In both of those sectors, Spain was still a developing country when "Sociedad Española de Automóviles de Turismo S.A. (Seat)" was set up on May 8, 1950. Institución Nacional Industria (INI) and a banking

consortium held 93 percent of the shares; Italian car-maker Fiat S.p.A. owned the remaining seven percent, having signed a deal with INI in October 1948 to produce Fiat models under licence in Spain. Until 1984, Fiat provided the basic design for all Seat models which were then modified to a greater or lesser extent to suit the Spanish market and customer tastes. The Seat 1400 was the first such model. Its start of production on June 5, 1953 was proudly marked by a ceremony officially opening the Seat factory in Barcelona, where in 1954 a workforce of 1,000 built 5,400 cars.

Once the difficulties of the start-up phase had been overcome, the Franco regime's expectations for a national car industry were fulfilled. Seat brought crucial momentum to both the country's economic development and mass motorisation. Aided by technical and financial support from Seat, and spurred on by Renault and Citroën factories in Spain, an automotive component supply industry emerged within the space of just a few years, giving Seat independence from foreign producers until 1957. On June 27th of that year, the Seat 600 – the first Spanish 'people's car' with a full-grade body – finally rolled off the assembly line. It soon drove the previously very popular "Biscúter" small car built by Autonacional, S.A. from the roads. Together with the two successor models, some 800,000 Seat 600 cars were sold before production stopped in 1973.

In 1965, Seat entered the export business, shipping 150 Seat 600s to Colombia, though contractual arrangements with Fiat severely restricted its export capability. It was not until 1967, when the licensing contract with the Italian car-maker was renegotiated, that export restrictions were substan-



SEAT 600 PRIOR TO SHIPPING

tially relaxed. In the same year, Fiat boosted its stake in the growing Seat concern to 37 percent. Following on from the exports to Colombia, Seat gained a foothold in Argentina, Morocco, Greece and Finland, where the Seat 600 D was the best-selling car between 1970 and 1973. Despite the Franco government's attempts to close off the Spanish market by imposing high import duties, US car-makers intensified competition during the 1970s. Both Ford and Chrysler built their own assembly plants in Spain. These trends ultimately exposed the flaws in Spain's dirigist economic policy, before the country adopted a more market-economy driven approach after Franco's death in November 1975. On the



CENTRO TECNICO IN MARTORELL

orders of the Spanish government, Seat took over the British Leyland AUTHI plant in Pamplona in 1975 in order to avoid the social problems that the planned closure of the factory would otherwise have triggered.

The stipulated expansion of capacities, productivity shortfalls and substantial investment in building the “Centro Technico” at the Martorell industrial park put Seat in the red in 1977. Those losses, together with sales problems of its own, may have been the reasons behind Fiat’s decision to cancel the takeover agreement signed in 1979. The unexpected withdrawal of the Italian car-maker in 1980, followed by a collapse in sales down to just 200,000 units, ultimately catapulted Seat into crisis. The restructuring programme launched in 1981 paved the way for automation of the Barcelona and Pamplona plants and for significant job cuts. Seat’s workforce was cut by one quarter, to

roughly 23,600, by 1984. In the same year, the brand’s first independent model made its appearance: the Seat Ibiza, designed by Giorgio Giugiaro, with a prototype built by Karman and engines supplied by Porsche. The Marbella small car and the Malaga, a notchback based on the Leon, were subsequently added to the product range.

Under the umbrella of the Volkswagen Group the Spanish brand developed promisingly, meeting expectations on both sides. By 1990, Seat’s production increased by more than half to 361,629 vehicles, while production at the Pamplona plant, where some of the Polo production capacity had been moved from Wolfsburg in 1986, rose by a third to 143,750 units. Seat increased its market share in Spain from 12 to 20 percent, and also assured the Volkswagen Group of a solid competitive position by selling the Polo as well as Volkswagen and Audi imports. Seat was equally successful on European volume markets. Between 1986 and 1990, exports of Seat’s own models increased by almost 80 percent to around 243,000 vehicles, chiefly sold in Italy, France and Germany. Spain’s largest automotive exporter and leader on the car market was thus supporting the Volkswagen Group’s volume strategy and helping to uphold its leading position in Europe which had been attained for the first time in 1985.

By 1988 this growth, combined with rising productivity, already meant that the Spanish brand was making a profit. The Wolfsburg parent company initiated an extensive investment programme to consolidate that success. Over the following five years, several billion Deutschmarks were invested in an assembly plant at Martorell and the modernisation of the other factories, in expanding the research and development centre, and in developing a new model range.

The Toledo, launched in May 1991, was the first model of a new generation featuring Volkswagen Group product technology and marked Seat's entry into the highly-competitive mid-class market. The Toledo was followed by the new Ibiza and the notchback Cordoba in 1993. Both models were built at the Martorell plant, a lean factory networked with suppliers, with a daily capacity of 1,500 vehicles, which set a new productivity standard within the Group's production alliance by achieving a throughout time for a complete vehicle of less than 20 hours.

But it seemed that progress in products and production came too late. Weighed down by the global economic crisis, which reached its peak in 1993 and led to massive sales drops, the financial structure of the Group's Spanish subsidiary, stretched by high investment in factories and model roll-outs, began to crumble. Volkswagen AG compensated for the losses with a capital write-down in April 1994, laying the foundations for a fresh financial start. But the high financing cost of the Martorell factory combined with low equity capitalisation required further support from Wolfsburg in the years to come as well.

The recession had clearly highlighted the latent structural cost problems which were hampering Seat's sales as price competition on European volume markets became tougher. The consolidation strategy deeply affected the factory structures of the Spanish company. In December 1993, the Volkswagen brand took over the Pamplona plant building the Polo. Production of the Toledo was relocated from Barcelona to Martorell in Autumn 1994. Once production of the Marbella small car series was stopped in early 1999, the Zona Franca plant, the very first Seat production facility,



IBIZA

focused on manufacturing components for Martorell and other Group plants. By the end of 1994 the workforce had been cut by one third, to 15,838, while the first work organisation reforms began to take effect. Flatter hierarchies more than halved the number of management posts. The new collective pay agreement established more flexible working times. Moreover, Seat pushed on with the development of its Martorell plant, transforming it into a modular factory and utilising the potential for rationalisation offered by the Group platforms to extend its product range. Technically



MARTORELL PLANT

based on the Polo, the Inca small van and the second-generation Caddy went into production at Martorell in 1995. In the same year Seat launched the Alhambra, a people-carrier built as part of a joint venture by Volkswagen and Ford in Portugal.

Seat returned to profit in 1996, and by 2001 earnings had risen from DM 63 million to 233 million euro. This was a phase of continuous growth, which gave the wider Volkswagen Group a boost too. It became the market leader in Spain in 1998, with a 23.4 percent share. Between 1996 and 2000, Seat's sales grew from just under 340,000 to around 520,000 units, with two thirds exported. A further

90,000 Volkswagen, Polo and Caddy units were built in Martorell, along with the Seat Arosa, Ibiza, Cordoba, Leon, Toledo and Inca models. In the first year of the 21st century, Seat performed strongly in Spain, selling 174,179 vehicles and moving into second place in the new vehicle registration rankings with a market share of over 12 percent. Sales subsequently began to decline, running at around 450,000 units until 2004. Seat reported a loss for the 2005 and 2006 financial years.

The company's management responded to its cost problems by continuously improving work organisation and productivity, so that Seat returned to profit in 2007 with an almost unchanged level of sales. The prototype development centre (Centro de Protitipos de Desarrollo) commissioned in January 2007 and the design centre opened in October of the same year helped to speed up processes at the Martorell site. The functional organisation and standard of technical equipment at the design centre create optimum conditions for the 100 or so employees to transform their creativity into practical mobility concepts. As the direct link between development and production, the prototype development centre combines the functions of prototyping, modelling, pilot product development and production analysis under a single roof. By reorganising the product creation process, Seat laid the groundwork for advances in productivity and faster model innovation. The objective behind this was to create energy-saving models, such as the Ibiza Ecomotive, and to move into new market segments. Seat entered the mid-class market in late 2008 with the start of production of the Exeo, a saloon based on the Audi A4 chassis.





QUALITY CONTROL FOR THE SEAT TOLEDO  
AT THE MARTORELL PLANT

The financial and sovereign debt crisis broadened into a severe general economic crisis on the Iberian peninsula. For a manufacturer with such a focus on its home market, the impact was inescapable. Deliveries to customers fell from 431,000 to a low of 321,000 vehicles between 2007 and 2012. The company has made a loss every year since 2008 as a result of the economic crisis conditions. More recent recovery has been boosted, among other factors, by the launch of new products such as the new-generation Leon, as well as the Mii compact in its two- and four-door variants.



SEAT LEON

But Seat is also looking to play its part in achieving turnaround by implementing its new minimalist design concept, aimed primarily at attracting younger buyers. The launch of the Leon in China in 2012 marks an attempt by the Spanish company to gain additional momentum through the growth on that market. And finally, the brand is looking to achieve savings and improve productivity based on its implementation of the Group-wide modular transverse-mounted engine matrix begun with the Leon. Increased vehicle sales of 394,860 units in 2014 have turned around the decline.

## Škoda

A fundamental social and economic transformation began in 1989 as the Iron Curtain came down. Czechoslovakia, with its relatively well-developed industry, seemed best equipped to make the transition from a planned to a market economy. From the viewpoint of the Volkswagen Group, this did not merely bring the prospect of a very promising sales market just across the border. The Czech automobile manufacturer Škoda was a prospective co-operation partner as a springboard to entering emerging markets in Eastern Europe. There were many substantial reasons for acquiring a stake in the state-owned company based in Mladá Boleslav. Škoda was a brand which was rich in tradition, very well known in the former Eastern Bloc countries, and sold well. The Czech car-maker was already selling to Western Europe, and Volkswagen believed that, with improvements to the model range, Škoda could expand its position further. Production structures at the plants in Mladá Boleslav, Vrchlabí and Kvasiny had been recently modernised to produce the Favorit starting in 1987, and expanding those low-cost capacities would not be a problem. Combined with a well-trained and flexible workforce, Volkswagen was of the opinion that Škoda had everything it took to swiftly become a competitive member of the Volkswagen Group.

The interest expressed by Volkswagen met with a very positive response from the government in Prague, which took a liberal economic line, having already begun the process to privatise state-owned companies in 1990. The government was also looking for a strategic partner for Czech industry's flagship and one of the country's largest foreign exchange earners. So a self-confident Czech government began negotiations with interested car-makers, calling for a clear commitment to the continued existence and further devel-



SIGNING OF THE JOINT VENTURE AGREEMENT  
BETWEEN VOLKSWAGEN AND ŠKODA

opment of Škoda. Volkswagen was happy to comply with this concern, since it coincided with the company's own plans for the future positioning of the new brand. At the same time, Wolfsburg indicated its willingness to make major investment. A total of nine billion Deutschmarks was earmarked over a five-year period for modernising production facilities and expanding capacity to an annual 400,000 units. The commitment to integrate Škoda with its own model range as the fourth brand in the Volkswagen Group was additionally of high symbolic value. On an equal footing with the other brands, the Czech car-maker was to profit from the synergy effects and cost benefits of the global procurement and production alliance. On December 9, 1990, Prague gave Volkswagen the go-ahead to acquire a stake in Škoda. The joint venture agreement signed on March 28, 1991 set out



the keynotes of this partnership and laid the foundation for Volkswagen AG to acquire an initial 31 percent stake in the shares of Škoda, automobilová a.s. on April 16, 1991, assuming managerial control of the new subsidiary.

The automotive tradition of the company with its famous winged arrow logo stretched back to the 19th century. In 1895, the mechanic Václav Laurin and the bookseller Václav Klement set up their company Laurin & Klement, which initially built bicycles and then moved into car production, starting with the Voiturette A in 1905. The merger with the conglomerate named Škoda based in Pilsen in 1925 created a new, internationally operating car manufacturer. The expertise and financial strength of the new company was considerable. The Mladá Boleslav firm brought a high standard of engineering and craftsmanship to the new company and was already an experienced car-maker. Based on its activities in the energy, transport and food industries, Škoda, on the other hand, had what was missing at Laurin & Klement: capital and branches all over the world.

From 1926 onwards, the fruits of this merger were obvious at the Mladá Boleslav plant. New production facilities with assembly lines producing models covering all vehicle segments, from the Type 110 compact to the Type 350 luxury car, were built. Reflecting the growing success of this business line, Škoda reorganised its car-making activities as a separate subsidiary in 1930. Four new model series took the company through the years of crisis that followed. The Popular, Rapid, Favorit and Superb were synonymous with innovative vehicle design and production engineering. The Popular, with its technically advanced features including a steel tube frame, trans-axle construction and independent



VOITURETTE A FROM LAURIN & KLEMENT



ŠKODA PLANT IN MLADÁ BOLESLAV

## POPULAR



suspension, soon became the Czech equivalent of the Volkswagen, while the Rapid and Favorit set new standards in the mid-class. The extravagant and powerful Superb was Škoda's scintillating flagship model in the luxury class. Sales justified these courageous yet commercially sound concepts. In 1936, Škoda became the market leader in Czechoslovakia, with exports also playing a growing role in the company's success. The advent of the Second World War in 1939 brought the company's development to an abrupt halt. Allocated to the Reich manufacturing corporation headed by Hermann Göring, the production of civilian vehicles took a back seat. Škoda instead became part of the war economy, producing aviation parts, munitions and trucks until 1945.

The post-war order consigned Czechoslovakia to the Soviet sphere of influence, marking the start of a systematic industrial restructuring based on extensive nationalisation. As a

## FINAL ASSEMBLY IN MLADÁ BOLESLAV



consequence, the Škoda group was disbanded in 1946 and divided up among various collective combines. The plant in Mladá Boleslav and the Škoda brand were all that remained of the automotive division. However, a new perspective did develop under a planned economy. The Communist government championed the cause of mass mobilisation, and was therefore interested in the continued existence of the Škoda plant. The Vrchlabí and Kvasiny plants were integrated at the end of the 1940s to boost capacity, so that large numbers of the new model series could be built from 1955 onwards. The Škoda 440 and its derivatives, with their beautiful lines and impressive fuel economy, put the company back on track. The Octavia saloon and the Felicia convertible were export hits. The revenues generated were ploughed back into Mladá Boleslav, where work on modern production plant began in 1960. Almost 460,000 units of the rear-engined Škoda 1000 MB rolled off the assembly line there between 1964 and 1969, with over half destined for export.

1000 MB



As the 1970s dawned, the planned economy was increasingly hampering the progress of Czech industry's flagship. Exports crumbled as a lack of financial resources made it impossible to modernise either the model range or the production facilities. Even the vehicles sold in the 1980s were still mainly based on the now outdated concept of the 1000 MB. In an effort to stem the creeping decline in competitiveness, Škoda began to search for new creative impetus, and found what it was looking for in Italian designer Nuccio Bertone. His blueprint reached production maturity in 1987, coming off the assembly line as the Favorit. The fast-moving social change triggered by the "Velvet Revolution" in Czechoslovakia in November 1989 led Škoda into partnership with the Volkswagen Group in 1991. Investment and know-how from Wolfsburg was urgently needed to put Škoda in a position to respond to the dramatic collapse of East European automotive markets. The loss of these markets could initially only be compensated by a more

FELICIA



intensive commitment in Western and Southern Europe. However, to survive in those regions, competitiveness had to improve significantly. The transformation process to bring this about lasted until the mid-1990s. Productivity doubled as a result of rationalisation measures, without entailing drastic job losses. Škoda was integrated into the Volkswagen Group's supply alliance, bringing further cost benefits and generating the company's first annual profit. Škoda also moved closer to customers with its own sales organisations in Germany, Poland, Slovakia and Bosnia-Herzegovina, as well as by expanding its dealer network.

The Felicia unveiled in 1994 was the first sign of a successful integration into the Wolfsburg-based group. This jointly developed vehicle could hold its own with a Volkswagen in terms of quality and technology, and soon found international acclaim. However, the continuing recession in Eastern Europe made the capacity expansion to 400,000

## MLADÁ BOLESLAV PLANT



vehicles a year announced in 1990 unrealistic. So Volkswagen slowed down the pace of development. Under the amended framework agreement with the Czech government of December 1994, Volkswagen, as Škoda's main shareholder, reduced its investment to a total of DM 3.8 billion, and adjusted annual production volume targets to 340,000 vehicles. In a separate move, Volkswagen successively raised its stake to 70 percent by 1995, contributing a total of DM 780 million. On May 30, 2000, the Wolfsburg-based company purchased the remaining shares from the Czech government, thus making Škoda a wholly-owned subsidiary.

## OCTAVIA



The foundations laid in previous years began to pay off in 1996. For Škoda, the new Octavia not only represented the successful expansion of the model range, but also marked the beginning of a new era in production engineering and organisation. The new facilities at Mladá Boleslav were the almost ideal embodiment of two key strategies in the Volkswagen Group. Systematic support for the local automotive component supply industry had established the industrial infrastructure around Mladá Boleslav required to make the transition to lean, modular production. Moreover, the Octavia's engineering based on the standardised Group A4 platform guaranteed high quality and further cost savings. Value for money, a high standard of vehicle safety, innovative technology and stylish design characterised both the Fabia launched in 1999 and the Superb presented in 2001. This attractive model range added to the profitability of the Mladá Boleslav, Vrchlabí and Kvasiny plants were the ideal prerequisites for successful international-

## PRODUCTION IN THE CZECH REPUBLIC



isation of production. Škoda opened an assembly plant in Aurangabad, India, in 2001. In 2003 production started at Solomonovo, in the Ukraine. And in 2005, facilities in Ust-Kamenogorsk, Kazakhstan, began operating on the basis of a co-operation agreement. The Czech company also holds a stake in OOO Volkswagen Group Rus, whose plant in Kaluga opened in November 2007, also builds vehicles bearing the winged arrow logo. Škoda thus played a pioneering role in developing high-growth emerging markets in Asia and Eastern Europe. Other Group brands are now also profiting from this early engagement. In 2008 Škoda's plant in India began producing the VW Passat and Jetta, as well as the Audi A4 and A6. The production alliance in India is likely to deliver further synergy effects after the Volkswagen plant opened at Pune in March 2009 began producing the Škoda Fabia as well as the VW Polo. Production was also started at the Anting, Yizheng and Ningbo facilities in China. The Czech company employed almost 25,890 people in total in 2014.

The addition to the product range of the Yeti SUV, the Citigo compact and the Rapid compact saloon (built initially in India) boosts deliveries to customers in 2014 up to 1.05 million units, with the manufacturing facilities in Russia, India and China making strong contributions to the sales growth. Sales revenues total 11.7 billion euro, with operating profit reaching 817 million euro. With its long-standing tradition, innovative strength and high earning power, the Czech brand is today an indispensable part of the Volkswagen Group.

## Volkswagen Financial Services

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Financial services acquired a prominent position among the Volkswagen Group's sales support instruments in the early 1990s. Following the successful merger of leasing and banking services in 1992 to form Volkswagen Finanz GmbH, a further strategic reorganisation came into effect on January 1, 1994, when all of the Group's European financial services operations were spun off and regrouped under the new holding company named Volkswagen Financial Services AG (VWFS). By the end of the same year, two further financial services subsidiaries had also been added, underscoring the international orientation of the newly-founded financing group. Separating financial services from the automotive business made it possible to fine-tune the two business fields more effectively and ensured a more accurate assessment of the various risks.

Moreover, the know-how transfer and the standardisation of product offerings and marketing strategies brought the prospect of a rise in earning power. In 1994, VWFS with its workforce of 2,236 provided finance and leasing services in seven European countries: Germany, France, Spain, Italy, the Czech Republic, Slovakia and the UK. Germany accounted for three-quarters of the 663,000 vehicle finance agreements and 437,000 vehicle leases. In April 1999, VWFS added a third field of business to complement its automotive finance and leasing activities, taking over the insurance company Volkswagen Versicherungsdienst GmbH (VVD) which – like the other two business units – also boasted a long and successful history in its field.

VVD was founded on February 10, 1948 by notarial certification of the shareholders' agreement, and was entered in the Register of Companies at the Fallersleben district court on February 28, 1948. Until then, the British-controlled Volkswagenwerk GmbH had produced almost exclusively for the Allies. Following Germany's currency reform, military transport requirements were replaced by rapidly expanding demand among private customers. In consultation with the Volkswagen organisation, VVD, whose shares had been transferred to shareholder Christian Holler in October 1949, devised a low-cost automobile insurance package. This was extended and expanded over the years, and was marketed through Volkswagen dealer sales personnel, who were given ongoing training in insurance. The package of products and services designed to enhance customer loyalty was instrumental in ensuring the rapid expansion of VVD as the Beetle boom went from strength to strength. By 1961 VVD had issued its 500,000th policy. The company had a workforce of 323 as well as an efficient network of field agents with 12 branches in Germany and offices in Austria, Italy and the Netherlands. A further two subsidiaries were established in the UK and France in 1962. In the same year, VVD expanded its product range to include its "Europa-Schadendienst" Europe-wide accident repair cover, having arranged the direct settlement of claims with importers. Combined with the fast-track settlement of personal liability claims introduced in 1972, VVD now offered an unparalleled insurance service which guaranteed customers the swift and cashless settlement of claims through 2,400 service partners across Europe and brought VVD further growth. In 1982, VVD, with total premiums collected of some DM 400 million, was ranked ninth in a





FINANCE CENTRE IN BRAUNSCHWEIG

survey of 100 car insurers. By 1983, the number of vehicle insurance policies had passed the 600,000 mark, highlighting the importance of VVD to Volkswagen's sales policy. The Volkswagen used car warranty underwritten by VVD introduced in 1983 further strengthened customer loyalty to authorised service centres. With low-cost premiums, refunds almost every year, the Europe-wide repair service and the close-knit field agency network, VVD remained a vital sales promotion instrument for the Volkswagen Group when it was integrated into VWFS at the end of the 1990s.



VVD BUILDING IN WOLFSBURG

Unlike the insurance business, car financing had been an in-house operation right from the start. Volkswagen Finanzierungsgesellschaft mbH (VFG), founded on June 30, 1949, gave the Wolfsburg-based manufacturer, at that time still under the administration of the British authorities, a sales promotion instrument at an early stage in its existence which fulfilled an important counterbalancing function given the lack of purchasing power among consumers in Germany. VFG financed 13 percent of all domestic sales on average from 1950 to 1952 through



OPEN-PLAN OFFICES OF VW KREDIT BANK

customer loans, while few dealers initially made use of the purchase finance offer. Subsequently, business in competition with the banks progressed generally positively, though with some ups and downs. In 1961, VFG concluded 24,668 contracts with Volkswagen buyers – more than double the figure for 1953. There were 2,152 contracts with dealers, indicating that the need for financing was growing as inventories increased, reflecting the transition from a seller's market where demand exceeded supply to a buyer's market. This trend resulted in a shift in business activities, with VFG financing loans for vehicles in stock from parent company funds from 1963 onwards. Mid-1965, however, saw VFG assuming responsibility for this lucrative business, concluding 345,205 contracts that year. Earnings increased as stocks rose during cyclical downturns, which

meant that the company's commercial success did not follow the same curve as the trend in sales of Volkswagenwerk AG. VFG posted one of its best performances to date in the 1967 recession year, not only reporting a profit of approximately DM 462,000, but also allowing for an equity increase of DM 600,000.

Continuous growth over the ensuing period drove sales from purchase financing in 1972 to more than DM 3 billion, in addition to the DM 224 million generated from loans to over 47,000 Volkswagen customers. Given these financing volumes, the company was converted into a bank, named VW Kredit Bank GmbH, on January 1, 1973.

The financial services provider survived the recession and the company crisis of 1974/75 with no financial damage. However, it bowed to increasing cost pressure by combining all banking businesses in Wolfsburg. In June 1975, the Ingolstadt-based subsidiary Audi NSU Kredit Bank GmbH merged with the parent company, which was from then on also responsible for Audi customers and dealers. Following the establishment of a joint Volkswagen and Audi sales organisation, this pooling of competencies culminated in 1978 in the company being renamed V.A.G Kredit Bank GmbH. In 1982 the company's registered office was relocated to Braunschweig.

With competitive financing offers, efficient cost management and rising profits, the financial services provider kept pace with the Volkswagen Group's volume strategy in the 1980s. The workforce almost doubled during this period, rising from 202 in 1980 to 400 in 1989. Net assets rose to just under DM 4.6 billion, and customer financing once

again became the predominant field of business. In 1990, after being granted a full-service banking licence, the company entered the deposit business, and introduced a credit card package comprising both Mastercard and Visa. It also changed its name to V.A.G Bank GmbH. This step into direct banking triggered an enormous surge in growth for the next decade, and was accompanied by organisational restructuring of the financial services business. Volkswagen Bank and Audi Bank were set up as subsidiaries of V.A.G Bank GmbH in 1990, followed by Seat Bank and Škoda Bank in 1991. In early 1992, the financial services and leasing companies were brought together under the umbrella of Volkswagen Finanz GmbH, which had been founded in March 1991.

Volkswagen had been one of the first German car-makers to systematically build its leasing business. Volkswagen Leasing GmbH (VLG), registered in Wolfsburg, was set up in October 1966 with a view to leveraging the sales potential offered by this up-and-coming mobility service which already accounted for 10 percent of new vehicle sales in the USA. The subsidiary co-ordinated and supported customer acquisition by the sales organisation, providing ongoing training for dealers, developing competitive leasing products and managing marketing and PR activities on a centralised basis. In 1968 VLG also began capital goods leasing, hiring out diagnostic equipment and other facilities to sales partners. Vehicle leasing initially focused exclusively on businesses and the self-employed. As early as 1969, VLG had already introduced complete solutions covering wear-and-tear repairs, as well as diagnosis and vehicle maintenance, with a view to strengthening customer retention and extending the value chain.



V.A.G KREDIT BANK IN BRAUNSCHWEIG

VLG enjoyed a competitive edge in these services in the form of some 4,000 Volkswagen, Audi and NSU dealers throughout Germany. Demand was also boosted by rising costs in Germany and the associated liquidity squeeze being felt by companies. The number of leased vehicles rose from 4,151 in 1969 to just under 29,000 in 1975, with profit rising from around DM 500,000 to over DM 20 million during the same period. Only 327 of the approximately 10,000 lessees were bulk customers with fleets of more than 10 vehicles, while the share of small businesses in the number of vehicles delivered had grown to roughly 65 percent. The associated rise in administrative costs was offset by organisational rationalisation, particularly the switch to a computer-based stock control and invoicing system in 1973.

The swift and efficient administration paid off when VLG opened the leasing business to private customers in May 1977. After an intensive advertising campaign, this customer grouping represented roughly 13 percent of all clients by 1980. From 1975, the extended range of products and services included motor vehicle tax and car insurance, advance financing of accident costs and claims handling. The 'Europa-Service' set up in 1978 guaranteed all customers a standardised and cashless service in 15 European countries.

With its product offerings specially tailored to the needs of specific customer groups and with variable terms for bulk customers, V.A.G Leasing GmbH, which relocated to Braunschweig in 1982, continued on its successful course. Although competitive pressure increased enormously in the 1980s, the company maintained its leading position on the car leasing market first won in 1968. At the turn of 1992, the company with its workforce of 432 and an inventory of 349,000 vehicles was integrated into the finance holding company. The merger with the bank opened up the prospect of favourable refinancing opportunities.

VWFS became an international company with an extensive range of banking, leasing and insurance services. The economic upswing that followed the 1993 global economic crisis created favourable conditions for the envisaged worldwide growth of VWFS, which in 1996 assumed responsibility for the Group's financial services in the Asia-Pacific region. By 2003, subsidiaries had been established in China, Japan, Thailand, Australia, Taiwan and Singapore, with the Singapore base responsible for managing regional operations. The representative office in Beijing, which was

opened as early as 1996, acquired its licence in 2004 and was the first European financial services provider to begin operating in China. The second path to internationalisation took VWFS into as yet uncharted European growth markets, and was based on the principle that "financial services follow automotive". VWFS set up a leasing company and a bank in Poland in 1996/97, a financing company in co-operation with the importer in Turkey in 1999, and the Volkswagen Group Finance OOO company in Moscow in 2003. Co-operation agreements linked VWFS to the Volkswagen Group's financial services providers in North and South America, with VWFS providing strategic consulting.

The Volkswagen Bank also went international, and had become a European bank by 2001, opening branches in Belgium, Ireland, Spain and Italy. With deposits totalling DM 4.5 billion, the bank now held the position of Germany's second largest direct bank. The introduction of the online current account marked the final step in becoming a general bank offering a comprehensive product portfolio. "AutoCredit" established itself as an attractive alternative to "ClassicCredit" for private clients. This innovative form of car financing, which combined low instalments with the option to purchase, arrange follow-on financing or return the vehicle at a guaranteed price at the end of the contract, became a bestseller. By the end of 2001, the number of contracts under this innovative product had risen to 351,000, or approximately one third of all customer financing.

In the dealer finance sector, VWFS prepared its response to the anticipated abolition of block exemption and made the necessary arrangements to develop new customer potential outside the Volkswagen Group. Established as a branch of



## RETAIL MOTOR FINANCE

Volkswagen Bank, Europcar Bank began in 2003 by offering financial services for mobile home dealers, subsequently expanding its services to cover multi-brand and independent used car dealers. Entry into the independent business – a step also followed by some international subsidiaries – boosted the number of customer financing contracts to 1.312 million by 2003. This meant that contracts had more than trebled in number since 1991.

Volkswagen Leasing business grew steadily between 1993 and 2003. The number of leases rose from 404,000 to 534,000. Two thirds of leases were concluded in Germany, the remainder in the rest of Europe and Japan. As in the financial services business, national and international success in this field was founded on expert advice, fast processing and a range of products tailored to the needs of the different customer groups, with standardised basic modules adapted to suit different national requirements.



Since the mid-1990s, sales volumes had begun to swing from private clients to bulk accounts, so the intensively competitive fleet management market was a focus of activities. On that market, Volkswagen Leasing offered the full range of services starting with the vehicles themselves, through complete insurance cover, claims handling and maintenance through to detailed operating cost accounting.

This phase was characterised by evolution into an international concern as well as its strategic reorientation as a mobility service provider. Following the trend towards international fleet concepts, leasing business no longer covered only Volkswagen Group vehicles. VWFS took the decisive step in this direction in 2004, acquiring a majority stake in LeasePlan Corporation N.V. The European market leader brought the necessary economies of scale for profitable fleet management as well as a presence on international markets, enabling VWFS to expand its position as a global mobility concern and extend its range of products and services.

The takeover of insurer Volkswagen Versicherungsdienst GmbH on April 1, 1999 accelerated the transition from a financial services provider to a mobility group. VWFS had thus established a third field of business to complement banking and leasing services. One of the 10 largest automobile insurers in Germany, VVD held almost one million policies and had know-how founded on more than 50 years' experience. VVD was also able to build on long-standing close co-operation with the Allianz insurance corporation, with policies concluded by VVD being passed on to Allianz. The insurance business expanded dramatically under the umbrella of VWFS. By 2006, the number of policies had almost doubled to more than 1.8 million. In that year alone,

VVD acquired over 200,000 new policies. The all-inclusive packages introduced in 2006 under VWFS combined attractive financing options with comprehensive insurance, warranty and maintenance services. These products, developed in conjunction with sales experts from the various Group brands and tailored to the needs of specific customer groups, paved the way to the future of mobility services.

VWFS has held responsibility for co-ordinating Volkswagen Group financial services worldwide since 2006, and has oriented its corporate structures to cater for the growing volume of work. In 2006, responsibility for operational business in Germany was transferred from the holding company to the German subsidiaries. Management functions for the organisation, now divided into five regions, were allocated at main board level. The financial services business continued to grow even under difficult conditions by sustaining its international expansion, including the launch of Volkswagen Bank Mexico in 2008 and the establishment of Volkswagen Finance Private Limited in Mumbai in 2009. VWFS is responding to new market trends and closing gaps in its portfolio with innovative products such as loan repayment protection insurance, the acquisition of the Euromobil car hire company by Volkswagen Leasing GmbH, and the establishment of an innovative car-sharing programme under the Quicar brand. The commercial strength and importance of the financial services business is underscored by the fact that 2014 Volkswagen Bank is one of the leading direct banking operations in Germany. The division overall holds a portfolio of 12.4 million financial credit agreements, leases and insurance policies, has net assets of 107 billion euro, generates an operating profit of 1.7 billion euro and employs 11,305 people.





## Volkswagen Commercial Vehicles

The Volkswagen Commercial Vehicles brand was not developed by acquisition, but grew organically within the Volkswagen Group. Officially, the brand was established in July 1995, with a view to pooling all the commercial vehicle expertise and resources of the Group. Although Volkswagen Commercial Vehicles was not established as an independent company, it was organisationally and financially assigned to the Volkswagen brand as the future controlling body for the Group's international commercial vehicles business. The Group had decided on this step in view of the growing importance of its commercial vehicles business line, which generated sales totalling about 10 billion DM from its main Hanover plant and its international facilities in Poland, Spain, Brazil, Mexico and South Africa in 1995. The product range, including the Caddy, Pick-Up, Transporter and Caravelle as well as the LT and heavy trucks, reflected the progression of the brand from a lightweight to a heavyweight. In 1996, the Multivan was added to the T4 range, introducing a modern version of a product line that had already formed part of the first Transporter generation.

The history of Volkswagen Commercial Vehicles began with the legendary Transporter. Dutch Volkswagen importer Ben Pon first produced a sketch of the new model in 1947. Developed from 1948 onwards as the Type 29, the rear-engined three-quarter tonne box van was presented to the media on November 12, 1949 and went into production in Wolfsburg on March 8, 1950. It created a new vehicle class, and established what has remained the essential cornerstone for the success of Volkswagen's commercial vehicles business to this day.



TRANSPORTER DIVERSITY

The multi-functional Transporter was launched at the right time to satisfy Germany's hunger for mobility in the era of reconstruction and the post-war economic miracle known as the *Wirtschaftswunder*. Between 1950 and 1960, strong demand, especially from small businesses in Germany and elsewhere around Europe, boosted production from about 8,000 to 151,000 units per year. In 1954, domestic sales were already overtaken by exports, which were roughly double the sales in Germany from 1958 onwards. The capacity available at Wolfsburg was simply inadequate to meet such strong demand from abroad, especially since booming Beetle sales were keeping the production lines busy. As a



TRANSPORTER

result, Transporter production was relocated to the new plant at Hanover, where the first vehicles were assembled in March 1956. In September 1957, production of the Transporter also started at Volkswagen do Brasil, and the versatile all-rounder was to play a key role in the subsequent industrialisation of Brazil.

The Type 2 had already developed its second role, as a family and leisure vehicle, in 1951, when the Samba minibus and a camper van were introduced. In the 1960s, this product group became an export bestseller, especially in the USA, where the Station Wagon defined a new product line and reached its highest sales figures to date as the preferred



VW LT

means of transport of the flower-power generation. In 1970, Volkswagen sold some 287,000 Transporters, with almost a quarter going to the USA, and the workforce at Hanover had reached 27,744 by the year-end.

The diversification of the commercial vehicle range started in the mid-1970s. With the launch of the LT, Volkswagen ventured into the light truck segment. Its truck know-how was reinforced by a development co-operation agreement with M.A.N., leading to the start of production of a new light truck range at Hanover in 1979. In 1981, Volkswagen gained a foothold in the heavy truck segment in Brazil, having restructured a subsidiary acquired from Chrysler which it then merged with Volkswagen do Brasil to form a commercial vehicle producer. The start of production of 11- and 13-tonne trucks in March 1981 also marked the first step in



HANOVER PLANT

the internationalisation of commercial vehicle production. The second step was the launch of a pick-up based on the Golf platform. This was first built by Volkswagen of America starting in 1980 and was then put into production, as the Caddy, by Yugoslavian affiliate TAS in 1982.

The expansion of the commercial vehicle range compensated for the export losses in the USA which started in 1972. In the 1980s, only 121,000 third-generation Transporters were sold on the US market. Total Transporter sales remained around 150,000 units per year from 1983 to 1989. Flagging sales of the pioneering model were mainly due to tougher competition and increasing differentiation within the market segment. Volkswagen responded to this trend in 1983 by launching the Caravelle, a well-equipped passenger car which laid the foundation for the independent family





TARO

and leisure variant of the Transporter range. In addition, Volkswagen added the Taro pick-up, produced in co-operation with Toyota, to its commercial vehicle range. The new models rolled off the production line at Hanover from 1987. The update to the T4, the first Transporter with a front-mounted engine and front-wheel drive, in 1990 was accompanied by extensive automation of the production process.

Initially, the new generation boosted business in Europe before the global recession curbed sales and production in 1993. The following year, Volkswagen sold 86,442 commercial vehicles on the German market, 61,165 elsewhere in Europe and 276,129 units worldwide. About half of those vehicles were produced at Hanover and the remainder at Volkswagen plants in other countries.



TRUCK PRODUCTION AT THE RESENDE PLANT

Following the establishment of the Volkswagen Commercial Vehicles brand, the Volkswagen Group consolidated responsibility for its international commercial vehicles business in Hanover. In September 1997, Volkswagen Commercial Vehicles was also given product and profit responsibility for Volkswagen Poznań Sp.z.o.o., a wholly owned Group subsidiary which had developed from a joint venture established back in 1993 with a Polish agricultural vehicle manufacturer. The growing company assembled cars for various Group brands as well as assembling the Transporter from CKD kits supplied by Hanover, and had continually increased its output since start of production. The second step in the internationalisation of the Volkswagen Commercial Vehicles brand came on January 1, 2000, when the brand assumed industrial control of Brazilian commercial vehicle operation Volkswagen Trucks & Buses (VWTB) at the Resende site.

In co-operation with seven partners from the local component supply industry, Volkswagen do Brasil had established a new production facility at Resende based on the concept of the modular factory, building trucks in the 7 to 42 tonne weight classes as well as two bus series. Located 160 kilometres to the east of Rio de Janeiro, the Resende facility was officially inaugurated in November 1996. The plant established what was in its way a unique model for co-operation with suppliers within the international Volkswagen Group alliance, extending far beyond just-in-time production. Key suppliers had formed a module consortium with Volkswagen do Brasil, assuming responsibility for module production on-site as well as for vehicle assembly. Only about 200 of the total workforce of some 1,200 were Volkswagen employees. The plant produced vehicles mainly for the Brazilian market and for export to neighbouring South American countries, especially Argentina, Chile and Bolivia.

South America was a key growth region for Volkswagen Commercial Vehicles. The significance of the brand within the Volkswagen Group had been underscored by the introduction of a brand Board of Management as of July 1, 2000. The “Series 2000” truck range, produced at Resende and including 15 models in a number of different weight classes, boosted sales in Brazil by 44 percent to 16,410 trucks and buses in 2000. Volkswagen Commercial Vehicles also gained ground in the Brazilian light commercial vehicles segment, reaching a market share of 20 percent. All in all, brand sales grew by six percent to almost 329,000 units and pre-tax profit reached DM 514 million. The Brazilian commercial vehicles business continued to see dynamic growth in the years that followed. In 2003, Volkswagen Commercial Vehicles sold 23,000 trucks and 6,000 buses, mainly



SERIES 2000

in South American markets, and established itself as the market leader in the Brazilian truck segment. VWTB underpinned this leading position in 2006 when it launched the Constellation truck range, which was also built at the Puebla plant in Mexico and the Uitenhage plant in South Africa.

The internationalisation of the Volkswagen Commercial Vehicles brand laid the foundation for the expansion of capacity at Poznań starting in the year 2000, as production switched to the next commercial vehicle generation. Substantial amounts were invested in new paint and body shops, as well as a logistics centre to manage the increasing interlinking of production with module suppliers. The “extended workbench” of the Hanover plant was thus transformed into an internationally competitive, export-oriented commercial





LARGE-CAPACITY SUCTION PRESS AT THE HANOVER PLANT

vehicle manufacturer with its own product range. The flat-bed variant of the T5 launched in March 2003 was built exclusively in Poland, as was the new Caddy based on the Golf platform, which began rolling off the production line in November of the same year. The hub established between the Hanover and Poznań sites replaced the old production network which until 2003 had involved supplying the Polish manufacturer with CKD kits. From that time on, the Volkswagen Commercial Vehicles brand was able to adapt Transporter production flexibly to incoming orders, and also adjust relative production volumes of the various models within the individual plants.

The new-generation T5 brought a more marked differentiation between the Transporter and Multivan/Caravelle series. The visible distinction between the two product lines was in line with the different demand structures of business and private customers and allowed marketing strategies to be tailored more closely to the distinctive requirements of the two customer segments. Flexibility, with individually tailored solutions, remained the key to success both for the people-carrier line and for the Transporter, which was available as a classic panel van, station wagon, box van, double-cab version or chassis unit, with eight different body types, three roof heights and 375 equipment variants. The quality of large body panels had been improved in 2001 by the commissioning of large-capacity suction presses, which also boosted productivity.

The new Transporter generation launched in 2004 enabled Volkswagen Commercial Vehicles to consolidate its market leadership in Germany and also become the number one in Europe. The brand's 44 percent increase in unit sales was

primarily attributable to the Caddy. In its station wagon variant, offering up to seven seats, the small van was sold over 100,000 times worldwide in 2004, and became the top seller in its class in Germany. Nevertheless, Volkswagen Commercial Vehicles posted a loss, as in the years previously. The losses stemmed from inadequate capacity utilisation, as well as from the high cost of new model launches and factory modernisation. In 2002 alone, these investments reached about a billion euro, but they provided the impetus which was essential for growth, the effects of which are still evident today.

Despite contracting markets in Western Europe, sales of the Volkswagen Commercial Vehicles brand for the first time surpassed the 500,000 mark in 2008. The top-performing product was the T5 series, selling 188,007 units, followed by the Caddy, of which 151,565 were sold. The successor to the LT, the Crafter, launched in 2006 and built in co-operation with Daimler AG at its plants in Düsseldorf and Ludwigsfelde, increased sales by over 10 percent against the previous year to 51,101 units. The Volkswagen Commercial Vehicles brand's strongest driver of growth in 2008 – both in light commercial vehicles and heavy trucks – was South America. The brand's Brazilian subsidiary Volkswagen Trucks & Buses – subsequently sold to MAN AG with effect from January 1, 2009 as part of a restructuring of the commercial vehicles business – increased its sales by a quarter to around 55,000 units, thereby playing its part in what was the Volkswagen Commercial Vehicles brand's best financial performance to date.



FINAL ASSEMBLY OF THE CADDY IN POZNAŃ

Due to tough economic conditions – but also as a result of the disposal of the South American commercial vehicles business to the MAN Group – the Volkswagen Commercial Vehicles brand's sales fell from their high of 503,000 units in 2008 to 362,000 the following year. However, new growth was driven by the start of production of the Amarok pick-up in 2008, which since 2012 has also been built in Hanover, and by the launch of the BlueMotion Multivan in 2011. Having delivered 436,000 vehicles to customers in 2010, Volkswagen Commercial Vehicles sales in 2011 leapt by 21.4 percent to 529,000 units. By 2014, sales of the Caravelle/Multivan/Kombi (Station Wagon), Transporter, Crafter, Saveiro, Amarok and Caddy series have fallen to 396,000 units in total, generating an operating profit of 504 million euro.



GUARANTORS OF SUCCESS: THE AMAROK, TRANSPORTER, CRAFTER AND CADDY

After almost 65 years of success, the Volkswagen Commercial Vehicles brand is today one of the most highly regarded suppliers of trucks and buses on the international market. The brand has consolidated its pioneering Transporter development by becoming a long-standing market leader in Germany and other European countries. The widely differentiated Transporter range for business and private use comprises five model lines which can be tailored to customers' individual needs based on hundreds of optional variants. Multi-functional and versatile, offering high standards of quality and value retention, environmentally friendly and reliable, the vehicles embody the traditional values of the Volkswagen Commercial Vehicles brand.

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