By the late 1950s, the German Wirtschaftswunder was well underway and as the economy grew, so traffic density increased. This was particularly noticeable around Stuttgart often making testing on local Autobahnen inconvenient and it caused Ferry to think about creating his own test track. Thanks to its close relationship with VW, Porsche could always use the vast Ehra-Lessien proving ground, but that was a 550km drive north. He deputed his
cousin Ghislaine Kaes, and Porsche financial director Hans Kerns, to look for a suitable site nearer home and the pair eventually found a parcel of land 20km west of Zuffenhausen situated between the villages of Mönsheim, Flacht and Weissach. At 38 hectares, it was rather bigger than Ferry had envisaged, but land prices were rising and smaller plots were in short supply. The need to establish a test centre outweighed other considerations and the plot was purchased in December 1960. In fact, it proved a wise investment and the company would later add more land to it, the facility today having become a true centre of Porsche excellence.
Building began in autumn 1961 and the first task was to construct a handling pad. With a 190m outside radius and two inner radiiues of 60m and 40m, this plus a few huts was the basis of what would become Porsche’s R&D powerhouse. In 1967, a 1.8-mile track, designed by Helmuth Bott, then in charge of testing was begun around the perimeter of the site. It had a three-quarter mile straight along its western edge and all the turns were lightly banked, except one, a difficult adverse camber corner known as the ‘Bott chicane’ and built as such because the landscaping budget had run out by this point.
It was in 1969 however, that wholesale development would begin with the building programme started by technical and motorsport director, Ferdinand Piëch. Then chief designer at Opel, Tony Lapine recalls receiving a delegation from Porsche in 1968 which had come to admire GM/Opel’s recently opened proving ground at Dudenhofen. Among the visitors was Ferdinand Piëch, deeply impressed, Lapine says and clearly taking everything in. This experience inspired Piëch to fashion Porsche’s Weissach facility on the same lines: in 1971, R&D and the design studio moved to Weissach and an inner circuit of 1.6 miles opened. By effectively cutting many of the corners of Bott’s route, this provided a second, faster circuit which hinted at the Can-Am racers to come.
In his autobiography *Unfair Advantage*, Mark Donohue describes how he and Roger Penske visited Weissach to begin development of the 917 for the 1972 Can-Am series. “It was like a miniature Chevrolet R&D... we saw that they had everything we could possibly need – dynos, component test machines, tyre testers, chassis shakers, hot rooms, cold rooms, door latch testers and so on. It was just smaller than GM. Porsche had five engineers instead of five thousand. There was a separate area where they kept old Le Mans cars, experimental cars and cars under restoration. We were truly impressed. We reckoned that all we had to do was put the operation in the proper gear, push it forward and we would have unlimited success.”
(From L-R): Mark Donohue, Roger Penske, Don Cox (Technical Director at Penske Racing), and Helmut Flegl stand with a Porsche 917/10 Spyder in Weissach 1971
Standing with a Porsche 917/10 Spyder are Mark Donohue (left), Roger Penske (centre) and Don Cox (Technical Director at Penske Racing) during a visit to Weissach in 1971.

Much of the money to build Weissach and indeed to fund Piëch’s ambitious racing programme had come from royalties earned from Porsche’s extensive subcontract work for VW: over two decades Porsche had built numerous prototypes for Wolfsburg and undertaken many development projects, but this highly profitable second income was terminated abruptly in 1973 when Rudolf Leiding, an Audi-NSU engineer took over at Wolfsburg. He persuaded VW management that the future lay not with rear engined cars, but front wheel drive designs presaged by the Fiat 128 and Audi’s 80. The plan to develop a rear engined small car, the EA266 which Porsche would also use as a basis for the 914’s replacement, itself the unique joint-production model resulting from the long VW-Porsche
collaboration, was abruptly cancelled by Wolfsburg. Porsche would have to look elsewhere to employ its engineers.

CEO Ernst Fuhrmann turned to investigating turbocharging for production cars and the 928 and 924 projects were accelerated and his deputy Bott took it upon himself to expand Weissach’s specialisms: he instigated proper crash testing, created a gas analyser to control exhaust emissions and built a proper wind tunnel. It was Porsche’s technical director and chief engineer who led efforts to obtain new third party customers - GM, Volvo, eventually even Mercedes-Benz. Porsche won a contract from the Army to design and build a light tracked vehicle, *der Wiesel*, which used a 2-litre Audi 100 unit mated to a five-speed Sportomatic transmission. Test drivers Mass and Ickx were said to be hard to prise from its driving seat. Porsche Engineering would become a separate company, undertaking vehicle
and transportation studies on a world-wide basis.

Air transportable Porsche Type 2304/05 Wiesel (weasel) armoured weapons carrier, September 1977
And expansion continued: Weissach’s famous hexagonal building, clearly visible in aerial photographs was completed in 1974 and as 1980s windfall profits rolled in thanks to the strength of the dollar, Bott invested in plant and equipment for Weissach as fast as his budgets would allow, helped by tax offsets which made such expenditure efficient. A new engine test rig was assembled with 35 electric dynamometers: a dedicated crash centre was designed. Previously Porsche had relied on running cars down a slope beside the Weissach track. Under the ambitious management of Ulrich Bez, Porsche’s accident research efforts won pedestrian and passenger safety awards.
These were great days at Weissach: besides the TAG McLaren F1 engine, Porsche was developing a variety of technologies from all wheel drive and double clutch transmissions to air suspensions and electronic chassis control which it hoped to use on the 959; 911.
variants such as the cabriolet and the Speedster were brought to fruition (though production of the Speedster was delayed until 1988). Encouraged by CEO Peter Schutz, Weissach developed the 3.2 flat-six for aviation, hoping to rival companies like Lycoming in the private flying market. Somewhat under-employed amidst all this research and engineering activity, Tony Lapine’s styling department periodically intercepted contracts intended for Butzi’s Porsche Design in Salzburg. This resulted in some interesting commissions, such as redesigning the Airbus cockpit for two pilots, eliminating the flight engineer’s seat. Another unorthodox job involved redesigning a forklift for Linde, which earned a useful million deutschmarks, but the real value of these contracts was in demonstrating the eclectic engineering and design skills of Porsche Engineering.
Automotive remained however the main activity. A four-year contract with the Russian Autovaz to replace the ageing Fiat-based Lada commenced in 1980 and would produce the widely-sold Samara; an engine was designed for Seat to replace Fiat units; another engine project saw Porsche develop a complete water-cooled range for Harley-Davidson. In the 1990s, Weissach produced a small front engine car design, the C88, for Chinese manufacture and nearer to home, was responsible for designing Opel’s ground-breaking Zafira. Perhaps the two most celebrated undertakings were the Mercedes 500E and the Audi RS 2: developed at Weissach and built at Zuffenhausen’s under-used production lines in 1990-1993. The 500E hot rod, of which 12,000 were made, was a favourite with racing
drivers and was followed in 1993 by the Audi, a thoroughly reworked Audi 80 Quattro, the five-cylinder 2.2’s output lifted to 315bhp and identifiable by its 17-inch Cup wheels.

Porsche Type 2636 Seat engine and gearbox development, 1982

Porsche development of the Opel Zafira, ca. 2000
(Above) Porsche and Mercedes-Benz worked together on the joint 500 E project. Parts of the front axle, engine and brakes were designed and developed at Weissach. From 1990, assembly was carried out in cooperative agreement between Mercedes-Benz and Porsche, ca. 1992; (Right) Final assembly of the Audi Avant RS 2 was carried out by Porsche, 1994
Bott’s massive investments paid off a decade later as having weathered the gruelling recession of 1990-1993 Porsche geared up to produce the 986/996, then a totally unprecedented project which involved designing two models off a common platform. Physically there were no great changes to Weissach during this period – Porsche’s funds ran only to buying a Cray supercomputer, then state-of-the-art, and major investments in cad-cam for design and production.
The Porsche Cayenne undergoes tests in the Weissach development centre, 20 October 2002

Porsche 911 Carrera 4 3.6 Cabriolet undergoes tests in the Weissach development centre, April 2003

If the Boxster and the 996 balanced the books, it was the runaway success of the Cayenne which paid for the next phase of development and in 2005, a 10,000m2 office block opened beside the road to Mönsheim. A couple of years later, the Motorsport department, based at the Flacht end of the track gained new premises, a far cry from the collection of huts at Weissach’s southern extremity that Peter Falk had inherited when he established
Motorsport there in 1981. By now Porsche was a four-model company with a fifth, the Panamera, in the wings and once more space was running out. With the Macan already at advanced prototype stage, Porsche announced the biggest expansion yet of Weissach, a four-year building programme which would completely rehouse styling and R&D, a new ‘aero acoustic’ wind tunnel to replace Bott’s 25-year-old model and an integrated electronics centre which would bring together scattered groups which had developed as the software side of vehicle design had grown. In 2015 as Porsche introduced its second generation of V6 petrol engines, new engine test rigs came on stream. Meanwhile, Porsche Engineering continued its confidential subcontract work for other mostly car manufacturers.

Today, more than 6000 people work at Weissach, almost three times the number in 1987,
and external contracts continue to account for a third of output. On the race track as in the market, Porsche has always punched above its weight, backed by the technical powerhouse of Weissach. It is not difficult to understand why.

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