
30 YEARS OF INNOVATION

Interview with Dr.-Ing. Andreas Riedel



Mr. Riedel, you are now a retired driving dynamics expert – how do you perceive the current developments in the automotive industry?

Autonomous driving is without a doubt an important trend. Personally, I have to admit that I am very much looking forward to being driven from A to B in a completely autonomous car, since a vehicle is first and foremost a means of transport in many situations, such as commuter traffic or on long highway stretches. Naturally, I also want to experience driving dynamics on an emotional level, but to do that I ride my motorcycle and take country roads. Another trend in the automotive industry is

the continuous further development of advanced driver assistance systems, which for me present the basis for a huge increase in driving safety. Let's take the ESP systems as an example, which has helped me several times in tricky situations, or the curve ABS for motorcycles.

How did you get involved with automobiles?

Back in school, I already had a strong knack for the natural sciences, in particular mathematics and physics. I also wanted to own a moped so I didn't always have to ride my bike. I asked myself quite early on why a moped didn't simply fall over – so I started to read about engines and vehicle technology. My motorcycle is what ultimately solidified my enthusiasm for the automotive sector.

In line with this interest, you chose a technical course of study after graduating?

My desire to study vehicle manufacturing as a specialisation was clear. I decided to study mechanical engineering and, after four semesters, I was able to explore the subject in greater detail. I was interested in vehicles, however, from the very beginning. Back in my second semester, I already attended a lecture by Professor Rolf Gnadler: "Driving characteristics of motor vehicles".

How did you come into closer contact with Professor Gnadler?

During my studies, I only knew him through visiting his courses. Back then, he offered me the chance to write my thesis on the development of a driver model. It is a strange thing considering my perspective today, because at that time I thought that the topic didn't have enough to do with vehicle dynamics. But later I learned how many findings in the field of driving dynamics could only be worked out with a driver model. Back then, I therefore decided to write my final thesis at the Institute of Technical Mechanics with Professor Wauer. He, in turn, recommended me when Professor Gnadler was looking for assistants for a driving dynamics project.

Just like with Alexander Schmidt, Managing Director of IPG Automotive, you spent five years as an assistant and this collaboration led to the founding of a joint company. What in particular do you remember about this?

A lot of work, also on weekends. Compared to now, many aspects of the work, however, were completely different. Today, you can no longer imagine, for example, that we worked late in the evenings and sometimes at night, since that was when computer availability was at its best. We frequently went home for dinner, but then returned to the computer lab afterwards.

How did you experience your transition into self-employment?

For me it was simple, the work in our exciting field was the deciding factor. I simply trusted that it would work out. To sum it up, I can say that I did exactly what I wanted to. In the beginning, we had a comfortable backlog of orders which proved positive for the new start. We therefore didn't immediately face the traditional problems, such as customer acquisition, usually associated with founding a new company. These challenges, however, did come later.

How did the work turn out for you? And how did you handle the company growth?

We had the advantage of slowly growing into our new tasks. As the company grew, however, we continuously faced new questions so that we constantly had to consider whether the distribution of the tasks within the company was purposeful. After every one of us handled his own entire customer base in the early stages, we realized that it was better to separate the fields by subject and allocate the different areas of responsibility, e.g. development, sales, marketing, administration, etc. Of course, you learn a lot over the years and fortunately I can say that our instincts took us down the right path many times.

What were the highs and lows?

It was great to have had so much success in the beginning. But you could also say that we grew a little too quickly, since the crisis in the automotive industry in the early 90s caught us almost completely off guard. This phase slightly slowed down the euphoric boom of the initial years. Fortunately, however, we persevered through this time and started experiencing steady growth again, which allowed us to expand our products and services.

How did the corporate culture develop along with the growth?

As managing director, I of course always felt responsible for everyone in the company, who I grew very fond of through our good working relationships. We always had a very fair and friendly rapport as well as a solid exchange of expertise. We always showed a high level of mutual respect for each other.

Is there something that you are particularly proud of?

The development of the IPGDriver was a huge personal achievement for me, since it has given the company a lasting reputation. In the beginning, the development of a driver model with a wide range of approaches presented a major challenge, accompanied by moments where not everything worked out as we hoped it would. However, we kept continuously advancing the project, integrating our findings and after a great deal of work, we produced an outstanding functional IPGDriver.

Is there a specific experience that stayed with you from your time as an entrepreneur?

In addition to a number of things, I look back at a specific presentation again and again. I was scheduled to give a presentation about IPGDriver at the 1989/1990 FISITA automotive congress. I was really nervous. Even though I always enjoyed presentations, this one was special: I had to give it in English, but I had only studied Latin, Ancient Greek and French in school.

At the end of 2011, you retired from your position as managing director of the company. Do you still follow the development of IPG Automotive?

Of course, I am interested in how the company is doing. Ultimately, I invested very many years of my life in it. For me personally, however, when I reached my mid-fifties, I asked myself what the long-term plan was. Together with Alexander Schmidt, I considered a number of possibilities for the future of the company. After all, as managing director, you are responsible for very many families. Since no one in my own family ventured toward the automotive industry and it was clear very early on that Steffen, Alexander Schmidt's son, was heading in this direction, this made it possible to keep IPG Automotive an owner-run company.

Where do you see the market of the future?

In addition to the (semi-)autonomous driving that I mentioned earlier, which will bring about major changes, I think that other driving concepts will be developed for local transportation. In particular, the pressure is increasing to find suitable models between less overall traffic and individual mobility needs in urban areas. This, in turn, will bring forth new functions and assistance systems, perhaps even entirely new vehicle types and categories. This simultaneously drives up development efforts, as new vehicles are equipped with new technologies. There are variations in driving characteristics and the overall system behaviour. New legal regulations must be taken into consideration. In order to test all these factors at an early stage, even more tests will be conducted using simulation – and IPG Automotive provides excellent solutions for this. I am really excited to experience the future advancements of the automotive industry.