

A conversation with our CEO, Mathias Hoefler



In recent months, we have been making headlines with [new funding](#) and accelerated [production plans for our AVIOR M-300 system](#). The response was amazing. We gathered the top questions we received from industry stakeholders and asked our CEO, Mathias Hoefler, to respond and share his thoughts. Enjoy the read!

Q: Please share the highlights on your recent news

MH - *The big news is the \$10 million in new financing. The funds came from AMEC, a global semiconductor equipment company based in Shanghai. Our founder, Doug Schatz also contributed to the round. It is a tremendous milestone for SOLAYER. It validates our product strategy, and provides the financial resources to power our next growth phase. As part of the deal, AMEC will distribute our products in China.*

The financing followed earlier news that we are ramping-up mass-production of our AVIOR M-300 optical coating tools. The tools are engineered for the precision optics market. The center of gravity for precision optics manufacturing currently tilts toward China, with the US close behind.

Q: What's the story of SOLAYER?

MH - *We were founded in 2007 by Doug Schatz and Kamel Ferdi. Doug also founded Advanced Energy Industries, a global power supplies leader.*

We are headquartered in Dresden in the heart of Europe's semiconductor hub, known as "Silicon Saxony". We manufacture our tools at this facility. We have subsidiaries in China, Japan, India, Korea, Taiwan, and the US.

We first developed specialized coating systems for research and pilot production. More recently, as new applications in the precision optics market began to emerge, we saw an opportunity to enable manufacturers with tools that deliver much better film quality, very high throughput, and lower production costs than traditional coating systems. We re-focused our business to concentrate on this sector.

Our headcount is 75 people and growing. It's an international team with deep expertise in vacuum coating technologies in industries ranging from optics, displays, solar and semiconductors.

Q: Why is the precision optics market important to SOLAYER?

MH - *First, the applications are a natural fit for ultra-high-precision coating tools offering high throughput and low cost-of-ownership advantages. Second, thanks to global megatrends, it's a market with extraordinary growth potential. Think 3D sensors, 5G networks, LiDAR, laser products, and more – all enabled by new optics technologies.*

Q: What end-user applications are enabled by your tools?

MH - High-end smartphones, for example. Embedded in the device is face-recognition technology. Behind the innovation is advanced optical filters. This is optics. LiDAR is another example. The breakthrough technology enables autonomous cars. It's a method that calculates distances by illuminating the target with a laser light and measuring the reflection with a sensor. This too is optics.

Q: What differentiates the AVIOR M-300 system?

MH - It's the product of advanced vacuum coating expertise and German-engineered quality of the hardware and software.

We designed the system to offer manufacturers a high-performance alternative to evaporation for their coating requirements. The platform is rooted in a technology (PVD) used for decades by semiconductor manufacturers. It consistently delivers on every important metric for ultra-precise film deposition: excellent process stability, superior film quality, and high productivity.

The system is fully automated, with key differentiators that include: a unique turntable configuration for flexible loading; automated loading and process control capabilities; high-speed on-substrate temperature measure capabilities; in-situ optical monitoring; setup for high quality optical amorphous silicon (α -Si:H), and variability in optical monitoring.

Q: Does SOLAYER have customers for the AVIOR M-300?

MH - We have collaborative engagements with companies in the optics sector. Our first AVIOR M-300 customer has been using the system for more than a year. NDAs preclude us from naming the companies we work with.

Q: You are new to the CEO role. Tell us about your background

MH - I became CEO in late 2019. Before that, I helped the executive team re-focus the business strategy, tighten the product roadmap, and implement aggressive mass-production plans.

I'm a mechanical engineer by training and have held technology and executive leadership positions in the electronics, display, data storage, and solar industries. Advanced coating technologies have always been a special interest for me. For nearly a decade, I ran global operations at Applied Films GmbH, later helping with integration programs following its merger with Applied Materials.

Earlier roles involved developing coating systems for hard discs at Oerlikon-Balzers and for the semiconductor industry at Leybold Systems. In addition, I was responsible GF for the coating area at Manz AG, which was focused on the development of solar coating equipment. Germany-based Manz is a technology provider for the production of electronic components and devices.

Q: What is SOLAYER's strategy for growth?

MH – *Our growth strategy is informed by our customers' technical priorities. That said, as a young entrepreneurial company, we must be strategic and leverage our resources smartly.*

We're focused on applications where our technology is differentiated and enabling, and where it delivers compelling ROI. Right now, that's the photonics sector. We'll partner closely with leading manufacturers, listen carefully, and innovate diligently to engineer creative solutions for their technical challenges.

As we deepen our customer engagements, we'll potentially add manufacturing capacity in region(s) where customer concentration is high. We also have plans to expand our R&D capacity to be ready with solutions for the next wave of applications.