

Our market organization is ready to serve you!

As of January 2024, Evatec embarked on an exciting new chapter. With the launch of our market- and product-focused organization, we have united customer-centric strategies and market orientation with cutting-edge equipment and process development under one roof. This new structure strengthens our ability to deliver tailored, innovative solutions and exceptional support across the fields of Compound and Photonics, as well as Semiconductor and Advanced Packaging. **Ralph Zoberbier**, **Admir Asanoski** and **Jakob Bollhalder** introduce our business fields and their activities.

A portrait of Jakob Bollhalder, a middle-aged man with a shaved head, smiling. He is wearing a dark blue suit jacket over a light blue button-down shirt. He is standing against a light-colored wooden wall. His hands are in his pockets.

Jakob Bollhalder
Head of Compound
& Photonics

We are more than happy to introduce Evatec's new organizational structure, which unites our strengths from previous business units with product development, customer engineering, and process innovation. This strategic integration allows us to better support your journey within two dedicated sectors of the electronics industry.

In the Compound and Photonics business field, we are focused on pioneering solutions for Optoelectronics, including LEDs and laser diodes, MEMS, and Wireless technologies like BAW and SAW filters. In addition our work is particularly driven by the latest developments in augmented and virtual reality layers, as well as the growing demand for photonic integrated circuits.

In Semiconductor and Advanced Packaging, we offer cutting-edge technologies for front- and backside layers of Power Devices, advanced packaging solutions, and heterogeneous integration applications. As the industry advances, we are committed to also delivering the innovative technologies needed to overcome challenges in frontend integration and panel processing, which are crucial to meeting the performance demands of Artificial Intelligence (AI).

You can read more about our developments and achievements in the next two chapters of this edition of LAYERS.



A full-length photograph of two men standing side-by-side against a light-colored wood-paneled wall. The man on the left is older, with grey hair, wearing a dark blue suit jacket over a white shirt and dark trousers with a brown belt. The man on the right is younger, with dark hair and a beard, wearing a dark grey suit jacket over a white shirt and dark trousers. Both are smiling at the camera.

Ralph Zoberbier
CMO

Admir Asanoski
Head of Semiconductor
& Advanced Packaging



Compound & Photonics – Leveraging know-how across market segments to keep the lead!

Just like within semiconductor and advanced packaging, huge changes in technology are and will continue to enable the mass market introduction of exciting new consumer devices. **Jakob Bollhalder**, Head of Compound & Photonics, introduces the primary market segments and the technological innovations propelling growth.

Key Market Segments and Drivers



- Within **Wireless Communication**, enhanced capabilities using 5G are already a feature of the smart devices in our hands and the drive is already on to deliver even faster speeds, lower latency, and greater connectivity – 6G here we come!

- ☑ From high performance SiO₂/SiN insulating layers to AlScN piezoelectrics for filtering and metal electrodes Evatec is supporting advanced SAW (Surface Acoustic Wave), BAW (Bulk Acoustic Wave), and RF Power technologies.



- Technologies within **Optoelectronics** like Micro LED Displays will see significant growth through mass market applications, initially in wearable technology, then expanding into augmented reality (AR) and automotive displays.

- ☑ From low-damage TCOs that reduce fabrication damage and improve device longevity, to metal contacts ensuring reliable electrical connections, and mirrors that enhance light manipulation and efficiency, Evatec's solutions are trusted by the world's leading manufacturers. Additionally, our anti-reflective coatings significantly improve output.



- **Photonics** is a sector with huge opportunities for the future and the integration of photonic components on a single chip. Photonic Integrated Circuits (PIC) is just one approach that will revolutionize performance and costs for many new consumer applications.

- ☑ Successful market introduction calls for thin film production solutions in areas like input couplers, e.g. BTO or for integrated light connections (e.g. SiN) and Evatec is your partner!



- **MEMS** (Micro-Electro-Mechanical Systems) technology offers significant growth potential in areas like Magnetic Sensing: (new advances in actuation technologies) and Quantum Computing (advanced materials and precise fabrication techniques)

- ☑ In the realm of quantum computing in particular we offer know-how for superconducting films such as Nb, aTa, Al, and Ti. Pilot lines established with market leaders means Evatec is well placed to support the industry as it takes off at the end of the decade.



Who is Evatec...

Why choose Evatec as your partner?

Listening to and innovating together with our customers is at the heart of our philosophy. Just like market needs develop so must our production solutions. That means providing platforms inherently flexible by design which can be adapted as necessary to the changing needs of individual customers, be it higher throughputs, more demanding layer specifications and sometimes both! Working together with our customers and suppliers in long term partnership is a “win-win” for us all.

Our aim is simple – to deliver the best customer value in the industry.



Semiconductor & Advanced Packaging – A great place to be!

In the ever-evolving landscape of electronics, the Semiconductor & Advanced Packaging sector is a hugely exciting area of innovation and growth. **Admir Asanoski**, Head of Evatec's business in this sector guides us through some of Evatec's activities covering three market segments, each with its own technological advances and market drivers.

Key Market Segments and Drivers



■ **Power Devices** such as transistors, diodes, and thyristors are essential for a myriad of electronic systems. The demand for these devices is surging, driven by the electrification of transportation, the integration of renewable energy, and stringent energy efficiency regulations. These components are integral to the functionality of electric vehicles, solar and wind power systems, and energy-efficient consumer electronics.

- ☑ Evatec leads the way with a diverse range of metallization processes for power devices made from Si, SiC, or GaN. Our portfolio includes solutions for frontside and backside contacts, protection layers, and other applications, all tailored to meet the specific needs of our customers.



■ Within the **Frontend Market** our focus is on advanced node devices, such as Logic ICs and Memory products, driven by the ongoing trend towards miniaturization and integration. The demand for advanced CMOS ICs is fueled by the need for smaller, more powerful, and energy-efficient devices, as well as the requirements of AI and big data analytics.

- ☑ Evatec offers interconnect metallization processes and niche applications such as warpage compensation used within the process flow of a 3D-Nand Memory, ensuring the highest quality and reliability in end products.



■ **Advanced Packaging techniques** are revolutionizing the performance of semiconductor devices by integrating multiple components into a single package. Employing technologies like 2.5D and 3D integration, WLP, and PLP brings greater miniaturization and enhances electrical and thermal performance.

- ☑ As market leader, Evatec delivers sputter solutions for advanced packaging processes with a unique system concept for wafer-level packaging delivering industry-leading R_c performance and outstanding CoO. With more than 10 systems installed around the globe our solutions for panel-level packaging, including Fan-Out processes and TGV, are at the forefront of IC panel advances.

Our Mission

We provide innovative thin film production solutions and services in our selected markets. Our process solutions ensure top performance, cost efficiency and uncompromised quality. We honor our commitments and deliver on time.



Teamwork

Collaborate to achieve success



Innovation

Drive and foster innovative solutions



Responsibility

Take ownership of our actions



Commitment

Consistently deliver on our promises



Integrity

Uphold the highest ethical standards



**Delivering
the best
customer
value in the
industry**

