

FOR IMMEDIATE RELEASE

EV GROUP ESTABLISHES HETEROGENEOUS INTEGRATION COMPETENCE CENTER

New HI Competence Center to help customers accelerate new product development fueled by heterogeneous integration and advanced packaging

ST. FLORIAN, Austria, March 2, 2020—EV Group (EVG), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology and semiconductor markets, today announced that it has established the Heterogeneous Integration Competence Center™, which is designed to assist customers in leveraging EVG's process solutions and expertise to enable new and enhanced products and applications driven by advances in system integration and packaging. These include solutions and applications for high-performance computing and data centers, the Internet of Things (IoT), autonomous vehicles, medical and wearable devices, photonics and advanced sensors.

The Heterogeneous Integration (HI) Competence Center combines EVG's world-class wafer bonding, thin-wafer handling, and lithography products and expertise, as well as pilot-line production facilities and services at its state-of-the-art cleanroom facilities at EVG's headquarters in Austria, supported by EVG's worldwide network of process technology teams. Through the HI Competence Center, EVG will help customers to accelerate technology development, minimize risk, and develop differentiating technologies and products through heterogeneous integration and advanced packaging all while guaranteeing the highest IP protection standards that are required for working on pre-release products.

"Heterogeneous integration fuels new packaging architectures and demands new manufacturing technologies to support greater system and design flexibility, as well as increased performance and lower system design costs," stated Markus Wimplinger, corporate technology development & IP director of EV Group. "EVG's new HI Competence Center provides an open access innovation incubator for our customers and partners across the microelectronics supply chain to collaborate while pooling our solutions and process technology resources to shorten development cycles and time to market for innovative devices and applications enabled by heterogeneous integration."

EVG has an extensive background in heterogeneous integration, providing solutions for this key technology trend for more than 20 years. Among these are: permanent wafer bonding—including direct fusion and hybrid bonding for 3D packaging and metal bonding—and die-to-wafer bonding with and without collective carriers for integration of III-V compound semiconductors and silicon as well as high-density 3D packaging; temporary bonding and debonding, including mechanical, slide-off/lift-off, and UV laser assisted; thin-wafer handling; and innovative lithography technologies, including mask aligners, coaters and developers, and maskless exposure/digital lithography.

Advanced Packaging Milestones

In the field of permanent bonding, EVG pioneered the patented SmartView® wafer-to-wafer alignment system more than 20 years ago, and has refined this technology over the years to support breakthrough technology advances such as backside-illuminated CMOS image sensors (BSI-CIS) and more recently the first demonstration of sub-100-nm wafer-to-wafer alignment overlay for hybrid bonding—enabling devices such as 3D BSI-CIS and memory-on-logic stacking. EVG developed the first temporary bonding systems for ultra-thin wafers as early as 2001, which are essential for 3D/stacked die packaging, as well as revolutionized low-temperature laser debonding for ultra-thin and stacked fan-out packages.



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In lithography, EVG cemented its position as a recognized technology leader with the delivery of the first UV molding solutions for high-volume production of wafer-level optics more than a decade ago, and has since led the proliferation of nanoimprint lithography (NIL) to high-volume manufacturing (HVM). EVG continues to break speed and accuracy barriers in mask alignment lithography for advanced packaging and, more recently, unveiled the world's first highly scalable maskless exposure technology, which addresses emerging requirements in HVM back-end lithography.

For more information on EVG's new Heterogeneous Integration Competence Center, please visit: https://www.evgroup.com/products/process-services/. Companies interested in participating at the new center can contact EVG by phone at +43 7712 5311 0, or e-mail: HeterogeneousIntegration@EVGroup.com.

About EV Group (EVG)

EV Group (EVG) is a leading supplier of equipment and process solutions for the manufacture of semiconductors, microelectromechanical systems (MEMS), compound semiconductors, power devices and nanotechnology devices. Key products include wafer bonding, thin-wafer processing, lithography/nanoimprint lithography (NIL) and metrology equipment, as well as photoresist coaters, cleaners and inspection systems. Founded in 1980, EV Group services and supports an elaborate network of global customers and partners all over the world. More information about EVG is available at www.EVGroup.com.

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