



EV Group Expands Collaboration with ITRI on Heterogeneous Integration Process Development – August 30, 2022

ST. FLORIAN, Austria, August 30, 2022—EV Group (EVG), a leading supplier of wafer bonding and lithography equipment for the MEMS, nanotechnology and semiconductor markets, today announced that it has expanded its collaboration with the Industrial Technology Research Institute (ITRI), one of the world's leading applied technology research institutes based in Hsinchu, Taiwan, on developing advanced heterogeneous integration processes.

With the support of the Department of Industrial Technology (DoIT) of the Ministry of Economic Affairs (MOEA), Taiwan, ITRI established the Heterogeneous Integration Chip-let System Package Alliance (Hi-CHIP) to help create an ecosystem covering package design, testing and verification, and pilot production, to achieve the goal of supply chain localization and expand business opportunities. As a member of the Hi-CHIP Alliance, EVG has provided several of its most advanced wafer bonding and lithography systems, including the LITHOSCALE® maskless exposure lithography system, EVG®850 DB automated debonding system, and GEMINI®FB hybrid bonding system. The installation of these high-volume-manufacturing platforms at ITRI's state-of-the-art facility will help enable EVG's and ITRI's shared customers to accelerate the development and transfer of new heterogeneous integration processes from R&D to customers' fabs.

In semiconductor manufacturing, 3D vertical stacking and heterogeneous integration – the manufacturing, assembly and packaging of multiple different components and dies into a single device or package – are increasingly important for higher performance beyond transistor scaling. 3D and heterogeneous integration are enabling high-bandwidth interconnects in advanced packaging to achieve overall system performance gains, and thus have become a crucial driver for artificial intelligence (AI), autonomous driving and other high-performance computing applications. As a result, the MOEA is proactively following up and bridging the resources with national-scale R&D projects such as “AI Chip Heterogeneous Integrated Module Advanced Manufacturing Platform” and “Programmable Heterogeneous 3D Integration”.

According to Dr. Robert (Wei-Chung) Lo, Deputy General Director of Electronic and Optoelectronic System Research Laboratories at ITRI, “As part of ITRI's mission to drive industrial development, create economic value, and enhance social well-being through technology R&D, we focused on developing new 3D and heterogeneous chip integration processes and forging close cooperation across the supply chain to enable continued development and growth of the semiconductor industry. Having the same fully automated high-volume-manufacturing systems in our research facility that our customers have in their fabs, including these new wafer bonding and lithography solutions from EV Group, enables our customers to immediately transfer process recipes developed at ITRI to their own fabs – providing short ramp-up time from lab to fab.”



The LITHOSCALE maskless exposure lithography system from EV Group is one of several tools providing process solutions to the Chip-Let System Package Alliance led by ITRI.

“Key to our Triple-i philosophy of invent-innovate-implement is our focus on engaging with world-leading research institutes, like ITRI, to accelerate the development and commercialization of new technologies that drive future innovations in the semiconductor industry,” stated Hermann Wautl, executive sales and customer support director and member of the executive board at *EV Group*. “Our ongoing collaboration with ITRI gives us access to world-class research expertise and further enhances our process support infrastructure in Taiwan, which EVG has significantly expanded over the years to better meet the growing needs and challenges that our customers and partners in the region face. This includes our exceptional process and application engineering team based in multiple locations across Taiwan, which complements the services provided at EVG’s Heterogeneous Integration Competence Center at our headquarters in Austria.”



About ITRI

Industrial Technology Research Institute (ITRI) is one of the world’s leading technology R&D institutions aiming to innovate a better future for society. Founded in 1973, ITRI has played a vital role in transforming Taiwan’s industries from labor-intensive into innovation-driven. To address market needs and global trends, it has launched its 2030 Technology Strategy & Roadmap and focuses on innovation development in Smart Living, Quality Health, and Sustainable Environment. It also strives to strengthen Intelligentization Enabling Technology to support diversified applications.

Over the years, ITRI has been dedicated to incubating startups and spinoffs, including well-known names such as UMC and TSMC. In addition to its headquarters in Taiwan, ITRI has branch offices in the U.S., Europe, and Japan in an effort to extend its R&D scope and promote international cooperation across the globe. For more information, please visit <https://www.itri.org.tw/english/>.

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.

<https://www.3dincites.com/2022/08/ev-group-expands-collaboration-with-itri-on-heterogeneous-integration-process-development/>