eBeam Initiative Member and Advisor Quotes

Advantest

"The F3000, Advantest's e-beam direct write lithography tool, will achieve improved throughput when combined with the DFEB approach. We are actively cooperating with D2S, e-Shuttle and Fujitsu Microelectronics to further increase the throughput of our systems. The eBeam Initiative will enhance our efforts to promote global investment and alliances to accelerate DFEB adoption by design teams."

— Kiichi Sakamoto, General Manager of Nanotechnology 1st Business Division

Alchip Technologies

"To further advance product performance and power utilizing new technology nodes, customers trust Alchip as their silicon partner to eliminate the barriers of adoption, including the impact of increased mask costs. As a solution-focused company, participating in the adoption of DFEB will allow us to streamline our manufacturing approach—enabling us to provide a cost-effective service to our customers."

—Kinying Kwan, Chief Executive Officer

Altos Design Automation

"To take advantage of DFEB requires optimized physical libraries. Altos' role in the initiative is to efficiently ensure that any modification to existing libraries does not cause a significant change in the library's electrical characteristics (timing, power and noise immunity)."

—Jim McCanny, Chief Executive Officer

Cadence Design Systems

"This initiative promises to open up a potentially fertile new strategy for silicon design teams. We look forward to collaborating with the other initiative members to help design teams bring innovative ideas to fruition."

—Dr. Chi-Ping Hsu, Senior VP, Implementation Group

CEA/Leti

"DFEB is an innovative, new approach to the old problem of boosting e-beam throughput while enhancing accuracy. We are participating in this global industry initiative to accelerate the education and adoption of DFEB through technology proof points for its insertion into semiconductor manufacturing environments."

—Serge Tedesco, Lithography Program Manager

D2S

"Through successful collaboration, we will be able to share and educate the industry on the myriad benefits afforded by this new maskless manufacturing approach. Currently, the total available mask budget in the industry is extremely cost prohibitive. With DFEB, however, there will be a reduction in mask costs, while enabling a larger variety of lower-volume SoCs."

—Aki Fujimura, Chief Executive Officer

Dai Nippon Printing

"By working closely with the eBeam Initiative, we will explore the opportunity to provide an optimal lithography solution, especially for a number of low-volume chip applications."

—Naoya Hayashi, Research Fellow

e-Shuttle

"Our e-beam writers in production today will have significantly enhanced throughput with the DFEB approach. Through it, we expect to broaden our market opportunity for devices and increase the number of design starts."

— Shinji Sugatani, General Manager of Shuttle Division

eSilicon Corporation

"eSilicon is pleased to join the eBeam Initiative. We view this technology as an important alternative to the rising cost of mask sets, enabling customers to quickly and cost-effectively prototype their custom chips and bring their new innovations to market."

—Jack Harding, Chairman, President & Chief Executive Officer

Fastrack Design

"Design teams are constantly challenged with additional, time-consuming steps in the design flow to fix technology scaling problems. We are delighted to support new approaches such as DFEB, which seeks to solve the problem of mask costs in an innovative way that makes design easier and faster."

—Moazzem Hossain, Chief Executive Officer

Fujitsu Microelectronics

"This global design-to-manufacturing collaboration will facilitate a unique capability for virtually maskless ICs that will increase design starts worldwide. We are actively collaborating on DFEB for Fujitsu's 65-nm low-power standard cell library. We expect to see the benefits of this collaboration—in terms of reduced costs and faster time to market—starting in 2009."

—Yoji Hino, Corporate Vice President

Magma Design Automation

"To enable customer success, Magma continually strives to provide solutions that reduce IC development costs and increase designer productivity. With its potential to reduce mask costs, DFEB technology could complement Magma's flow. We're pleased to participate in the eBeam Initiative because it will enable Magma to help guide development of the DFEB technology and ensure that our customers can fully leverage it along with our world-class implementation software."

—Kevin Moynihan, General Manager, Design Implementation Business Unit

PMC-Sierra

"The growing interest we're witnessing among many of today's leaders demonstrates the strong potential DFEB holds to address the industry's growing mask costs. By enabling a lower threshold to tapeout, we will be able to adopt new technology nodes earlier and better target products for lower-power and higher-performance."

—Colin Harris, Chief Operating Officer

Qualcomm

"It is clear that advanced technologies are pushing the limits of the laws of physics, with optical lithography as one of the most prominent of those limits. Complex DFM technologies have provided answers to the lithography challenge in recent years but can't continue indefinitely. E-beam is clearly one of the credible alternatives which can be expanded in applicability through a collaborative e-beam ecosystem such as the eBeam Initiative."

—Riko Radojcic, Principal Engineer & Manager

STMicroelectronics

"ST has been at the forefront of many industry paradigm shifts and is participating in the eBeam Initiative to advance maskless lithography. We are well positioned to identify the best application domains because of our advanced process, SoC design, and design methods expertise."

—Jean-Pierre Geronimi, Director of Computer-Aided Design

Tela Innovations

"Tela's on-grid, straight-line, one-dimensional layout structures for SoC designs will be very synergistic with direct write e-beam solutions, offering advantages in throughput and cost. Tela is pleased to participate in this Initiative to help move the industry forward with innovative solutions like DFEB to the challenges of semiconductor scaling."

—Neal Carney, Vice President of Marketing

Toppan Printing

"We fully support the goal of the eBeam Initiative to increase the number of design starts for low-volume production. Toppan produces the stencil masks for the EB direct writing tools, and we are eager to continue our collaboration to further improve the effectiveness of the DFEB approach."

—Yuichi Kumamoto, Director, Deputy Head of Semiconductor Solution Division

Virage Logic

"Our commitment to always be first to market on new processes, with our broad portfolio of semiconductor IP products, demands continuous investment in R&D and strategic collaboration with our SoC design ecosystem partners. As the semiconductor industry's trusted IP partner, we are excited to participate in the eBeam Initiative to help address such critical issues as ever increasing NRE costs and ever-shorter time-to-market windows."

—Brani Buric, Executive Vice President of Marketing & Sales

Vistec Electron Beam Lithography Group

"We see the integrated CP functionality, combined with DFEB, being a novel part of the e-beam technique—as a bridge between the high-resolution requirements of advanced R&D and the challenging throughput expectations driven by industrial prototyping applications. The CP feature is available today from Vistec and was recently installed at CEA/Leti to enable real-world collaboration and research."

—Wolfgang Dorl, General Manager