MedeaPlus forms maskless litho advisory board

LONDON — Semiconductor manufacturing equipment companies ASML Holding NV, Leica Microsystems AG, and Mapper Lithography NV, together with the three leading European chipmakers, Infineon Technologies AG, Philips Semiconductors, and STMicroelectronics NV have formed a European advisory board on maskless lithography under the auspices of Europe's MedeaPlus program.

MEDEA+ is a program for co-operative R&D in Microelectronics, within the pan-European Eureka framework.

The objective of the board, known as EAB-ML2, has been created to provide guidance to various European initiatives and research programs on maskless lithography.

Several European consortia are developing tools for maskless pattern definition with different approaches based upon either particle optics or photons, MedeaPlus said. Also a number of ideas on beam modulating devices are being tested. In all cases, effective and reliable imaging would require high data transfer rates, the group addded.

EAB-ML2 is intended to serve as a forum for the exchange of ideas between suppliers and users, and explore application scenarios for the implementation of maskless lithography.

ASML is aiming at a maskless extension to its optical roadmap via optical mask-less lithography (OML), according to MedeaPlus. Leica and Mapper are championing multiple e-beam concepts.

"The involvement of the major European semiconductor manufacturers and semiconductor equipment companies will ensure that the solutions provided will be tuned to the requirements of the IC industry. This is the most important issue that we will address in the EAB-ML2," said Mart Graef, chair of EAB-ML2, in a statement issued by MedeaPlus.

"We estimate maskless lithography as a promising solution for low-volume IC products, maybe also for prototyping of new designs," said Peter Tischer, vice chairman of MedeaPlus, in the same statement.

Peter Clarke
Silicon Strategies
10th January 2005