

News Release

Mattson Technology Contact	Investor Contact
Lauren Vu	Laura Guerrant-Oiye
Mattson Technology, Inc.	Guerrant Associates
tel +1-510-492-6250	tel +1-808-882-1467
fax +1-510-492-5930	lguerrant@guerrantir.com
lauren.vu@mattson.com	

FOR IMMEDIATE RELEASE

MATTSON TECHNOLOGY ANNOUNCES BOARD OF DIRECTORS APPOINTMENTS

FREMONT, Calif. — September 20, 2011 — Mattson Technology, Inc. (Nasdaq: MTSN), a leading supplier of advanced process equipment used to manufacture semiconductors, today announced the appointment of Dr. Hans-Georg Betz as the chairman of the board of directors and the appointment of Scott S. Kramer as a member of the board. Dr. Betz succeeds Ken Kannappan, who will continue as a member of the board.

Mr. Kannappan commented, "I am pleased to be transferring the role of chairman of the board to Hans, who is eminently qualified to lead Mattson Technology's board. He has strong executive management and diverse global experience as the chief executive officer of several high-tech companies, including Advanced Energy Industries, Inc. from which he recently retired as chief executive officer and director."

"Ken has made great contributions during his tenure as board chairman, and we are tremendously grateful for his service," said Dr. Betz. "We are very glad that Ken will continue to contribute to the company as a board member and member of the board's audit and compensation committees."

Dr. Betz concluded, "We are also delighted to welcome Scott, a global semiconductor industry leader, to join our board. His leading edge experience is aligned to the new growth positions the company is engaged in with its key customers."

Scott Kramer recently retired as vice president of manufacturing technology at SEMATECH, Inc., a position he had held since 2008. During his career with SEMATECH (from 1994 to 1997 and from 1998 to 2011), he had held various positions as director, program manager and fab



operations manager. As founder of the International SEMATECH Manufacturing Initiative ("ISMI"), Mr. Kramer recently led the world's first 450 millimeter wafer program. Prior to joining SEMATECH, he worked for LAM Research and IBM. Mr. Kramer holds a master of business administration from the University of Utah and a bachelor of science degree in mechanical engineering from the University of Missouri.

About Mattson Technology, Inc.

Mattson Technology, Inc. designs, manufactures and markets semiconductor wafer processing equipment used in the fabrication of integrated circuits. The Company is a leading supplier of plasma and rapid thermal processing equipment to the global semiconductor industry, and operates in three primary product sectors: dry strip, rapid thermal processing (RTP) and etch. Through manufacturing and design innovation, Mattson Technology produces technologically advanced systems that provide productive and cost-effective solutions for customers fabricating current- and next-generation semiconductor devices. The Company serves foundries, and memory and logic integrated device manufacturers in the United States, Europe, China, Japan, Korea, Singapore, Taiwan and other Asian countries. For more information, please contact Mattson Technology, Inc., 47131 Bayside Parkway, Fremont, CA, 94538. Telephone: +1-800-MATTSON/+1-510-657-5900. Internet: www.mattson.com.

"Safe Harbor" Statement Under the Private Securities Litigation Reform Act of 1995:

This news release contains forward-looking statements. Forward-looking statements address matters that are subject to a number of risks and uncertainties that can cause actual results to differ materially. Such risks and uncertainties include, but are not limited to: end-user demand for semiconductors; customer demand for semiconductor manufacturing equipment; the timing of significant customer orders for the Company's products; customer acceptance of delivered products and the Company's ability to collect amounts due upon shipment and upon acceptance; the Company's ability to timely manufacture, deliver and support ordered products; the Company's ability to bring new products to market and to gain market share with such products; customer rate of adoption of new technologies; risks inherent in the development of complex technology; the timing and competitiveness of new product releases by the Company's competitors; the Company's ability to align its cost structure with market conditions; and other risks and uncertainties described in the Company's Forms 10-K, 10-Q and other filings with the Securities and Exchange Commission. The Company assumes no obligation to update the information provided in this news release.