

FOR: BE SEMICONDUCTOR INDUSTRIES N.V.
Ratio 6
6921 RW Duiven
The Netherlands

PRESS RELEASE

BE Semiconductor Industries Announces Share Repurchase Program

Duiven, the Netherlands, September 3, 2007, BE Semiconductor Industries N.V. ("the Company" or "BesI") (Euronext: BESI), a leading manufacturer of assembly equipment for the semiconductor industry, today announced that its Supervisory Board has approved the repurchase of up to a maximum of 1.5 million of the Company's Ordinary Shares from time to time on the open market or in privately negotiated transactions pursuant to an authorization by the general meeting of shareholders at BesI's Annual General Meeting in March 2007. Such authorization expires September 2008 unless extended by affirmative resolution of shareholders at BesI's Annual General Meeting to be held in 2008. The maximum number of shares subject to this share repurchase authorization represents approximately 4.7% of BesI's 31.9 million shares outstanding at August 31, 2007 (net of treasury shares previously repurchased) or approximately €7.0 million in market value at BesI's closing Euronext price on August 31, 2007. This second share repurchase program in 2007 is in addition to the share repurchase program announced in February 2007 and completed in July 2007, by which the Company purchased a total of 1 million shares, or approximately 3% of its shares outstanding.

If fully consummated, BesI will have repurchased via repurchase programs in 2007 and prior thereto the maximum permissible pursuant to its current shareholder authorization.

Based on current market prices, BesI believes that it is in the best interest of its shareholders for the Company to acquire shares in the open market both to help reduce the difference between its stock price (€4.65 closing price as of August 31, 2007) and its book value per share (€ 5.78 at June 30, 2007) and partially to offset dilution associated with employee stock plans and the issuance of shares in connection with the acquisition of Datacon in 2005.

The timing and amount of any shares repurchased under its current share repurchase authorization will be determined by the Company's management based on its evaluation of market conditions and other factors. The repurchase program may be suspended or discontinued at anytime. Any repurchased shares will be available in the future for use in connection with its stock plans and for other general corporate purposes, including acquisitions.

The repurchase program will be funded using the company's available cash resources. As of June 30, 2007, BesI had cash and cash equivalents of approximately € 102 million, total debt outstanding of € 92 million and net cash of € 10 million.

About BE Semiconductor Industries N.V.

BE Semiconductor Industries N.V. designs, develops, manufactures, markets and services die sorting, flip chip and multi-chip die bonding, packaging and plating equipment for the semiconductor industry's assembly operations. Its customers consist primarily of leading U.S., European, Asian, Korean and Japanese semiconductor manufacturers and subcontractors which utilize its products for both array connect and conventional leadframe manufacturing processes. For more information about Besi, please visit our website at www.besi.com.

Caution Concerning Forward Looking Statements

Statements in this press release regarding Besi's intention to repurchase Ordinary Shares from time to time under the stock repurchase program, the intended use of any repurchased shares and the source of funding are forward-looking statements. There are a number of important factors that could cause actual events to differ materially from those suggested or indicated by such forward-looking statements. These include, among others, the market price of Besi's stock prevailing from time to time, the nature of other investment opportunities presented to the Company from time to time, the Company's cash flows from operations, general economic conditions, and other factors identified in the Company's Annual Report to be filed with the AFM.

Contacts:

Richard W. Blickman
President & CEO
Tel. (31) 26 319 4500
investor.relations@besi.nl

Cor te Hennepe
Director of Finance
Tel. (31) 26 319 4500
investor.relations@besi.nl